DANISH FOREIGN OFFICE JOURNAL

NUMBER 38 1961

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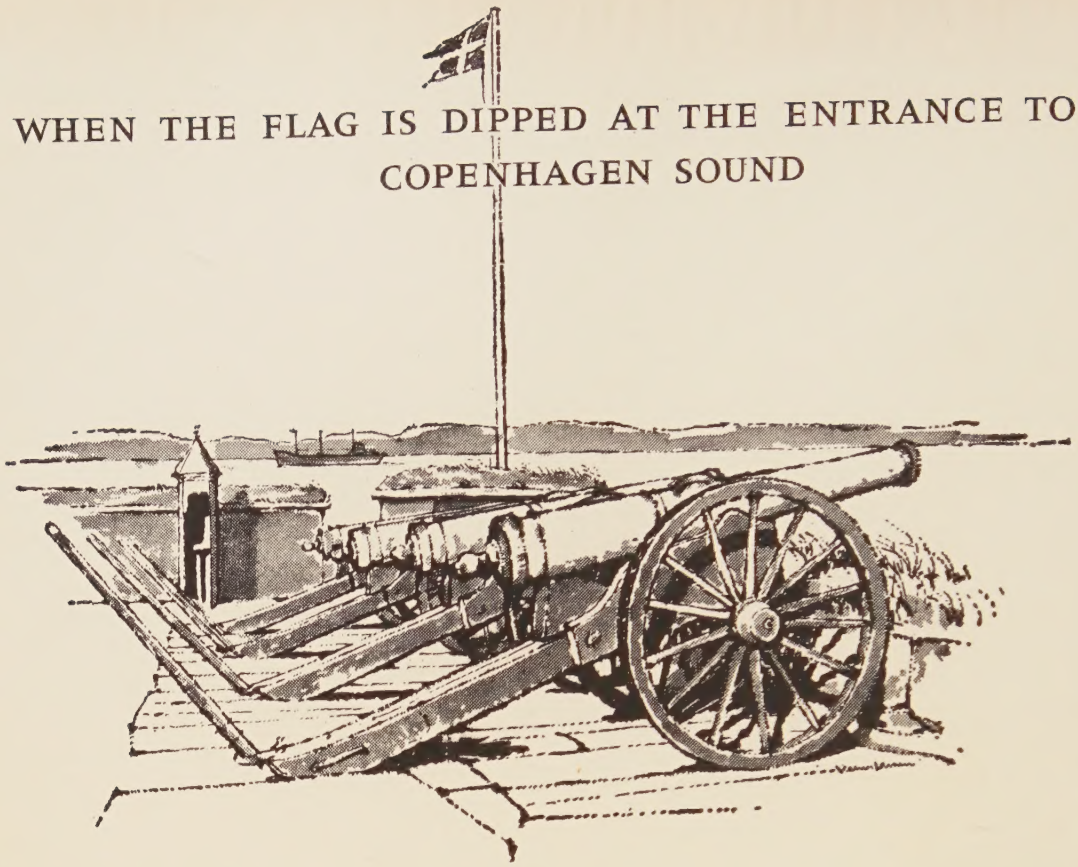
WHEN THE FLAG IS DIPPED AT THE ENTRANCE TO COPENHAGEN SOUND



When late-medieval ships stood into the narrow Sound between Denmark and Sweden, the cannons roared their warning from the Kronborg Castle bastions for the captains to drop their anchors and pay Toll on their cargoes. More than five centuries later, this heavy Toll has given way as a national source of income to exports and the roar of the guns has been succeeded by a warm-hearted tradition followed to this very day: when the flag is dipped at Kronborg it is meant as a greeting to the crews from the Commandant of Prince Hamlet's ancient castle: Godspeed and Bon Voyage!

The same respect for tradition prevails in the house of Cherry Heering. Now as then, ships stand off the Sound, many of them loaded with the famous liqueur of Denmark. Now as more than a hundred years ago, the Heering family sends its own ships overseas to serve as Ambassadors for the things which make the stately Peter F. Heering mansion in Copenhagen the centre of a far-flung organization: cherry trees in bloom in the vast Heering orchards, the old oak casks in the cellars, a business spirit deeply rooted in bygone years, and the fair name and fame of Cherry Heering. Unimpaired through good times and bad, the flavour of Cherry Heering is as strong and as sterling as it was in the days of the Sound Toll, and on every foreign shore – from San Francisco to Singapore – from Melbourne to Montevideo – the flag is dipped to loyal friends in the tradition of enjoyment: Cherry Heering – cheers!

CHERRY HEERING

PETER F. HEERING - COPENHAGEN - DENMARK

DANISH FOREIGN OFFICE JOURNAL

COMMERCIAL & GENERAL REVIEW

TRAINING SHIPS ACROSS THE OCEAN

In Denmark, where seafaring traditions go back to Viking times, it has been the custom for many years to train future ships' officers on sailing ships, which now cruise their solitary way across the oceans among engine-driven ships. By Captain Knud L. Hansen, Training Ship Danmark ..... *page 11*

FINE CRAFTSMANSHIP

Sound traditions of workmanship together with close collaboration between artist and craftsman are the foundations on which the worldwide success of modern Danish furniture design have been based. By Viggo Sten Møller, director of the School for Arts and Crafts, Copenhagen ..... *page 15*

WILD ANIMALS FROM COPENHAGEN

A Noah's Ark of 'wild' animals, born and bred in captivity far from their natural surroundings, have been exported during the past fifty years from the Copenhagen Zoo to zoological gardens in many countries. By Frank Henov .. *page 18*

A KIERKEGAARD MUSEUM

A collection of Kierkegaard relics, treasures showing how the Danish author and philosopher lived and worked, has been established in the Copenhagen City Museum. One of its initiators explains its background and the desire to give Kierkegaard the same sort of memorial as the other celebrated Dane, Hans Christian Andersen. By Jørgen Buch..... *page 19*

NEW ORGANS INSPIRED BY OLD ONES

During the last generation Denmark has made a pioneer contribution in organ building, with the result that, since the war, Danish organs have become well known in other countries. By Niels Friis..... *page 22*

ALL SORTS OF BISCUITS

In recent years the Danish biscuit industry has undergone a great expansion: originally a local industry catering only for the home market, it now exports 30-40 per cent of its output to many countries. By Vagn Heiselberg . *page 25*

BACON RESEARCH AND TRAINING

The Danish bacon factories are to open a Bacon Factories Training College associated with the Danish Meat Research Institute at Roskilde (twenty miles from Copenhagen), in order that research and training in the bacon and meat production industry may go hand in hand. By Arne Christiansen ..... *page 27*

PLASTICS IN DAILY LIFE

The Danish plastics industry has developed repidly in the last few years, as plastics have become an essential feature of our daily life. Here, in a production which calls for great skill and accuracy of workmanship, Denmark's traditional standards of craftsmanship have stood her in good stead. By Henning Pedersen ... *page 29*

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The Cover, drawn by Alex Secher, relates to the article by Captain Knud L. Hansen, Training Ship Danmark

NUMBER 38 . JUNE 1961

Numbered serially, irrespective of the year

PRINTED IN DENMARK

Danish Furniture

designed by architect m. a. a.

HANS J. WEGNER

5 Danish furniture manufacturers are co-operating about the production of the furniture designed by Hans J. Wegner - 5 manufacturers keeping up the best traditions of Danish cabinet work with special stress on quality.

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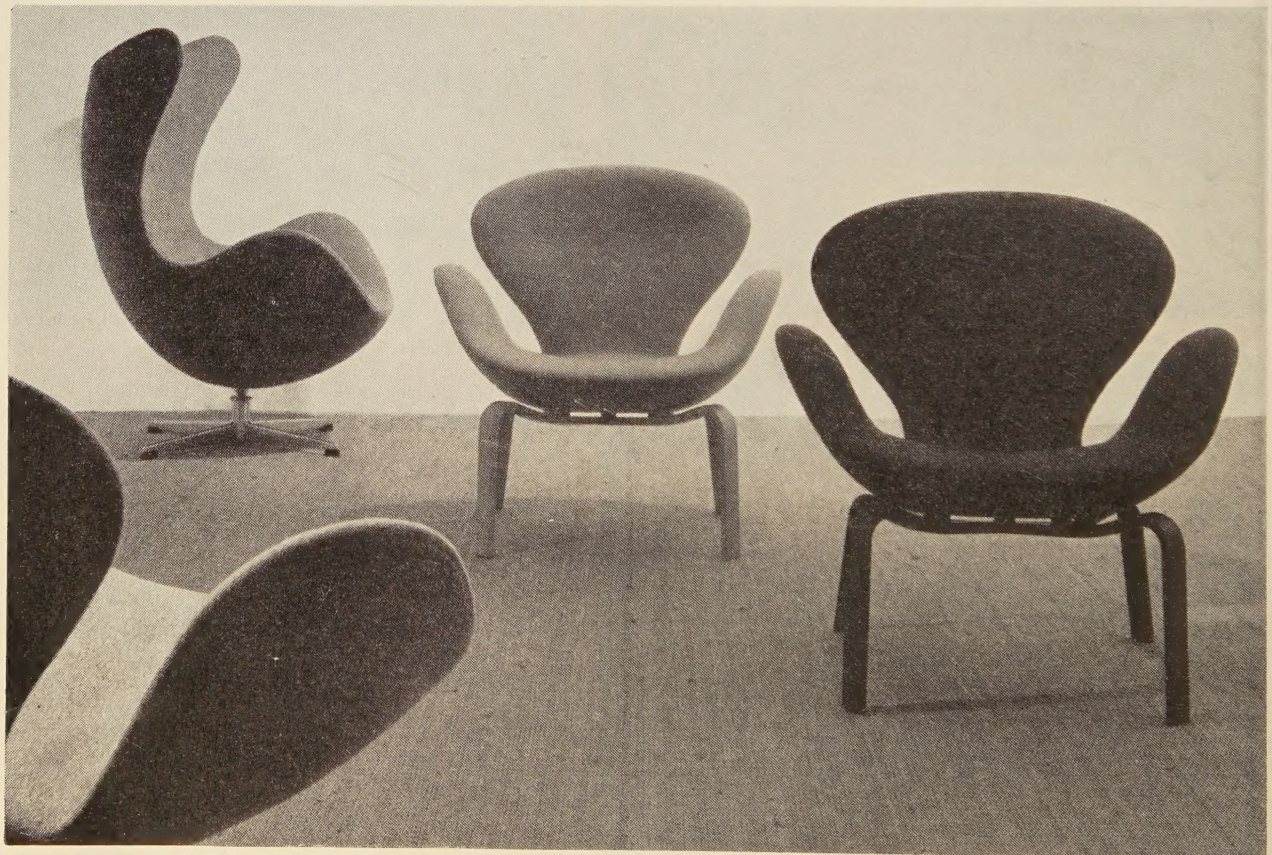

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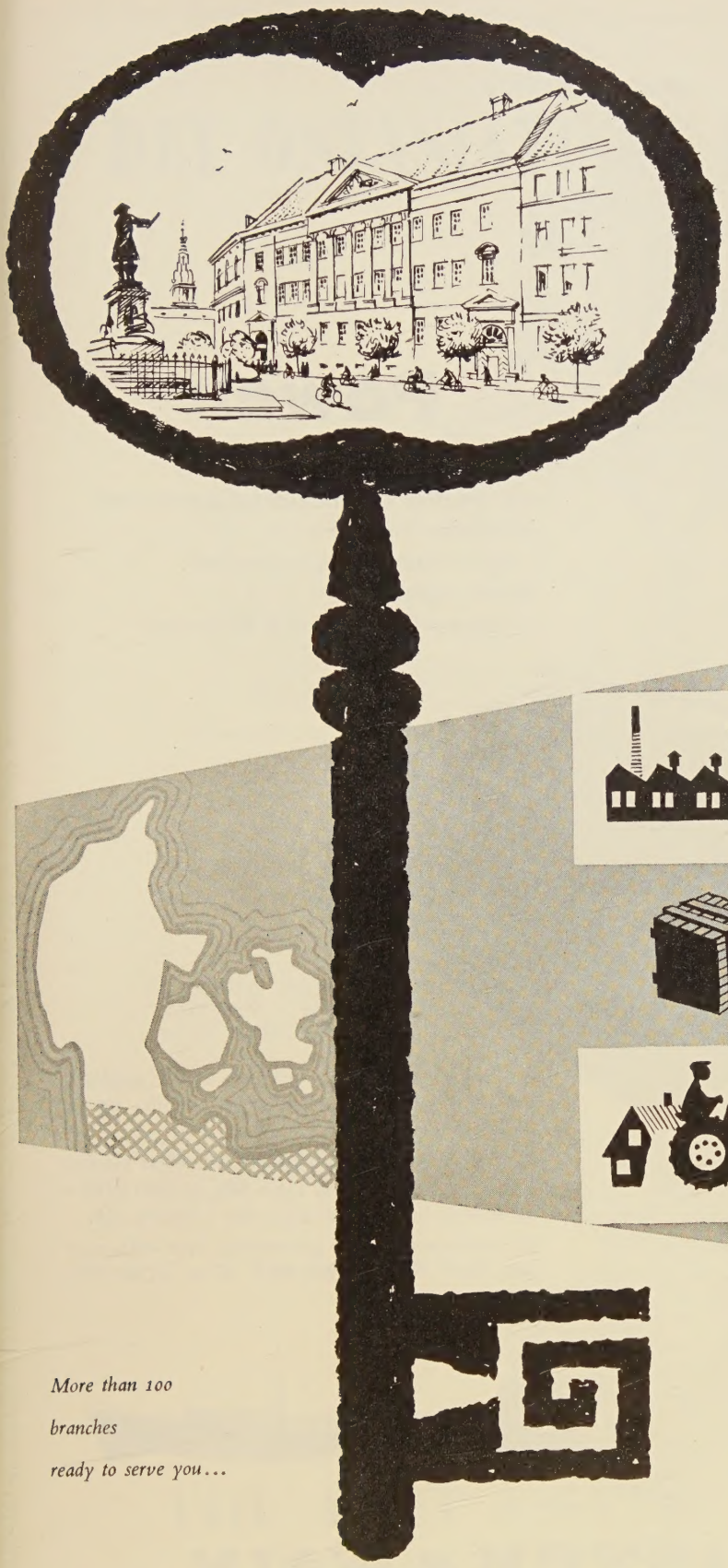

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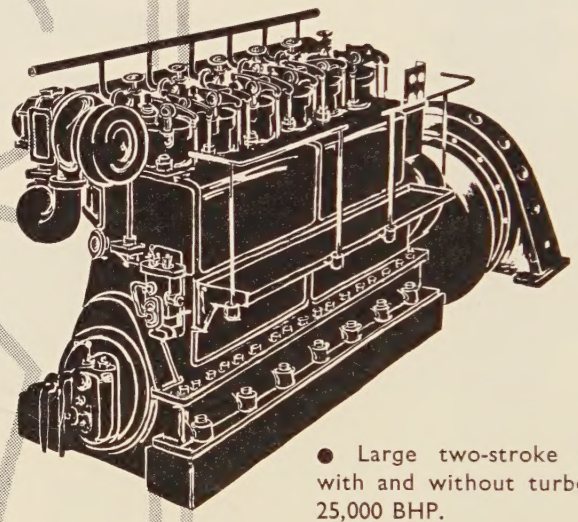

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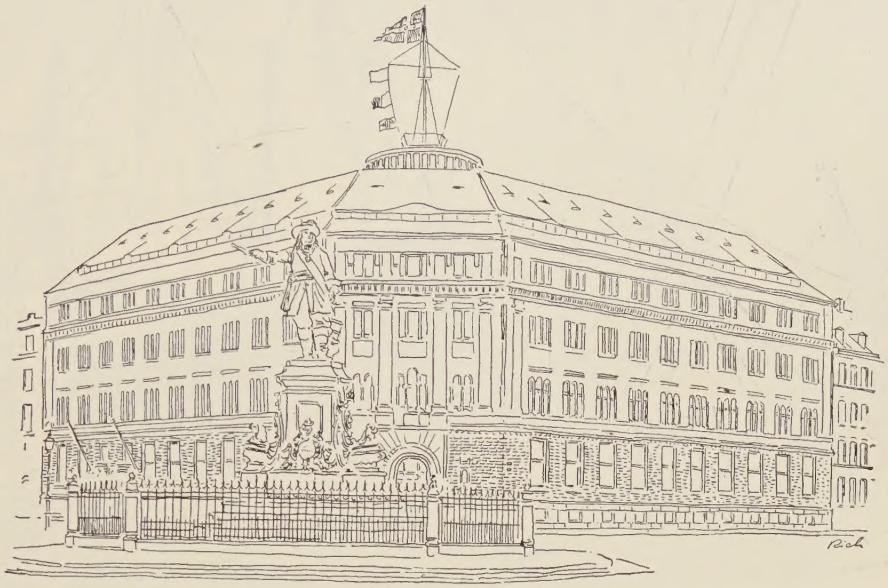

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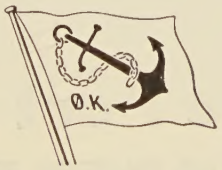

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Training Ships across the Ocean

By Captain KNUD L. HANSEN
Training Ship *Danmark*

In Denmark, where seafaring traditions go back to Viking times, it has been the custom for many years to train future ships' officers on sailing ships, which now cruise their solitary way across the oceans among engine-driven ships

With her training ships Denmark carries on the proud traditions which can be traced back to Viking times and which will provide efficient officers of the highest capacity in the future. The three-masted sailing ship *Danmark* with its clear-cut clipper-type stem has now plied the Atlantic, the Indian Ocean, the Mediterranean, and home waters for 28 years, covering 400,000 miles in 20 cruises and training 2,230 cadets.

An Idea that Caught On

Shipping has been of great importance to Denmark since ancient times. Archæologists and historians tell us that the Vikings were the first Europeans to land on the American continent. They discovered Greenland and Iceland and made the first trading connections in the Mediterranean. Both in the training of seamen and in the art of shipbuilding Denmark has always been a pioneer and the Danes were the first to appreciate the importance of training ships.

The boy who went to sea in the latter half of the nineteenth century was not to be envied. He ranked considerably beneath the ship's dog. He was cuffed and licked, his working hours were unlimited, and his food poor. They were not the best of conditions for developing the young man's character. So in 1872 the shipowner C. F. Stage took up the idea of training ships, and ten years later, on his own initiative, he built the first real Danish training ship, called the *Georg Stage*, able to train 80 cadets a year. The idea caught on. For two generations young men were trained to become efficient seamen on this ship, and there were soon so many that the *Georg Stage* could not cope with them all.

Morning parade on board the training ship "Danmark"

Consequently, in 1907 an association af shipowners had built for them a four-masted barque, which was named the *Viking*. The economy was based on the cargo it could carry, but nevertheless the running costs were so heavy that 12 years later the *Viking* was sold to Finlad.n The lack of a large sailing ship after this was sorely felt,

At the White House President Kennedy was recently presented with a model of the training ship by a Danish schoolgirl

and so the East Asiatic Company had built in Britain the five-masted barque *København*, which was able to train 48 cadets at a time and in addition carry a large cargo of goods. This fine ship vanished without trace after eight years' service, on a stormy night of December 1928 in the South Atlantic, and all on board are presumed to have perished.

A Government Task

The view gradually gained acceptance that sea training should be a Government task; and after discussions between the Ministry of Shipping, shipowners, and the various nautical associations the Government decided to build the Government training ship *Danmark*, which was launched on November 19, 1932, at the Nakskov Shipyard. The ship's main dimensions were: Length 63 metres, breadth 10 metres, tonnage 777 g.r.t.

An auxiliary engine of 250 horsepower was installed for use in confined waters and when entering and leaving harbours. The vessel was a three-masted full-rigged ship with double topsails, single topgallant sail and royals, giving a total sail area of 1,636 square metres. Ropes, manilla and hemp, together with cables, had a total length of 14 kilometres. The ship was provided with two through decks, a double bottom throughout, and radio. Ship and equipment cost 665,000 kroner. The vessel set out on her maiden voyage on June 15, 1933, with a full complement of cadets.

Whereas the duration of cruises now is six months, up to 1958 it was about nine and a half months, divided into two parts: a two-and-a-half-month cruise in Danish waters, during which time the cadets got to know their ship and fellows; and a cruise lasting about six and a half months on the oceans.

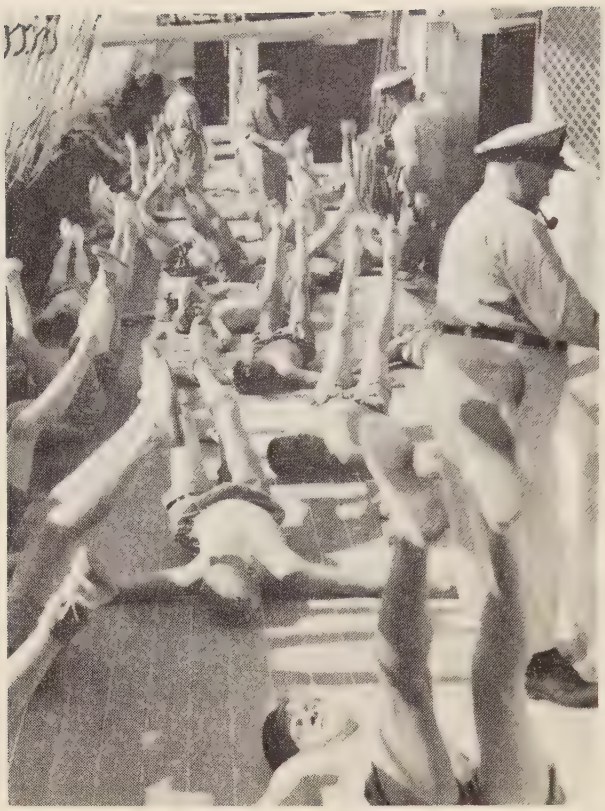
Thorough Theoretical Knowledge

A seaman's work involves a thorough theoretical knowledge of the things he has to deal with, and the cadets have to spend many hours in the class-room acquiring it. On a cruise they receive 22 periods in seamanship, 22 in navigation, 22 in the rules of the road at sea, 22 in Danish, 22 in arithmetic, 10 in writing, 10 in science, six in hygiene, six in engineering, and 35 in morse and radio-telegraphy. In addition, there are many lectures by the captain and instructors on winds and currents, ship types and constructions, meteorology, routes, stability, and so on, all of which extend their knowledge of the element that will be their daily life in the years to come.

The practical and theoretical instruction takes all day, but something else is slipped in that is no less important and that runs all through the training. This is the character formation which takes place. Common tasks, discipline, order, team work, and the navigating of a sailing ship, in which all are responsible, smooth off the edges of the young men's characters and are the means of moulding the best human qualities. The cadet when he comes on board is only a big boy, but the tough and invigorating life at sea matures him steadily and surely for the vocation he has chosen.

The training ship *Danmark* enjoys exceptional good will

A robust physique is necessary for these cruises, not least when the lads are sent aloft



Top: Gymnastics on deck in sunshine. Bottom: The helmsman at the wheel

both at home and abroad. It is not uncommon for a pilot to refuse his fee for piloting the ship safely into port, and for harbourmasters and others smilingly to decline payment for their assistance.

Hundreds of people flock to the harbour when the training ship with her towering white sails approaches shore, and the quay where she is docked is thronged. The cadets are overwhelmed by the official welcomes and perhaps a trifle proud over all the fuss occasioned by them and their ship. It is a common thing for them to be invited on sightseeing excursions to the various places. But before being allowed ashore they can be sure of an admonitory speech calling upon them to show credit to their ship and their country by exemplary behaviour.

At the American Government's Disposal

An indelible chapter in the history of the training ship *Danmark* is formed by the six years and ninety-seven days when the ship was absent from home because of the Second World War. When the Germans occupied Denmark on April 9, 1940, the ship lay at Jacksonville in Florida, and in the circumstances was of course unable to return home. The crew met with extraordinary friendliness on the part of the people of Jacksonville, who began to speak of the *Danmark* as the ship without a country and furnished her with food and clothing so that no one went short. But in spite of all the friendliness the young men aboard her had no desire to remain passive. As time went on they signed on aboard Allied ships or joined the Canadian Navy, Army, or Air Force.

Seven of the cadets succeeded in becoming master mariners before they were 21. And after Pearl Harbor the ship herself was placed at the disposal of the United States Government. The *Danmark* was used for training cadets at the US Coastguard's Naval Academy at New London—meeting again, incidentally, in the mixed crowd of sailing-ship types which made their way to the bay of New London for the same purpose, an old acquaintance, the former Danish training ship *Georg Stage*, which, now named the *Joseph Conrad*, had led a chequered career.

The American defence authorities realized that it was not enough to have good ships and plenty of them. There had to be first-rate officers and men to man them. And there was only one place where it was possible to train efficient and capable seamen with the best human qualities on board sailing ships!

The *Danmark* ran its school month after month and trained 2,800 American cadets before the end of the war. The ship then reverted to the Danish flag and was able to set course for Copenhagen. When she had left Denmark in 1939 it had been with 120 boys on board. Only seven of the old cadets returned with her. Fourteen of the boys found their watery graves in the struggle for Denmark's freedom.

The training ship resumed her old work. The law, however, no longer requires that would-be mates shall receive part of their training on sailing ships, and many people have doubted whether enough cadets will come forward when this has ceased to be necessary. It is the intention that the *Danmark* should sail for three more years in order to find out if this is so. It is a fair assumption that shipowners will continue to prefer those mates who have had sailing-ship training, but if this proves to be wrong then the *Danmark* will have to discontinue her activities as a training ship.

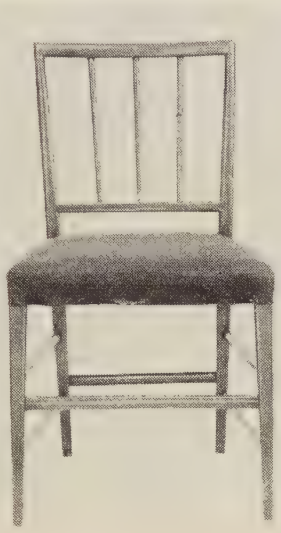
Fine Craftsmanship

By Viggo Sten Møller
Director of the School for Arts and Crafts, Copenhagen

Sound traditions of workmanship together with close collaboration between artist and craftsman are the foundations on which the worldwide success of modern Danish furniture design have been based

When the Danish beech woods turn yellow next autumn it will be 35 years since the Cabinet-makers' Guild in Copenhagen began holding its annual exhibition. This long succession of furniture shows has been of great importance to the development of furniture design in Denmark. They have always been carefully organized by way of competitions to find new types of furniture suitable for craft production at Copenhagen workshops. This procedure has also led to the establishment of many good links between young furniture designers and master cabinet-masters who are experienced craftsmen. The annual furniture exhibition has become the place where one looks for inspiring innovations: a place giving scope for experiment and especially for displaying fine craftsmanship.

The fact that modern Danish furniture has such a high reputation and is so widely esteemed in the world is due in no small measure to the work that is associated with the furniture exhibitions of the Cabinet-makers' Guild.



Brøtterup's chair from the Museum of Decorative Arts (Kunstindustrimuseet)

Early Concerted Efforts

Efforts to develop Danish cabinet-making go far back. Present skills and organization are based on tradition. As early as 1777, the Government set up the 'Royal Furniture Warehouse' for the purpose of 'developing a better and inexpensive domestic production'. Important cabinet-makers such as Røntgen, Brøtterup and Lillie were associated with the warehouse. Among Brøtterup's works is his famous chair which has served as a model and an inspiration down to the present day, and which is now on view in the Museum of Arts and Crafts in Copenhagen.

As a natural consequence of the wars with Britain in 1801 and 1807, the interest in British furniture design cooled off somewhat, and preferences moved toward Franco-German Classicism. Schinkel, the great German architect, was much admired at the time. Through Danish adap-

An interior design by Børge Mogensen

Top: Modern porcelain showroom in Copenhagen, designed by Architect Finn Juhl. Bottom: Modern conference room furniture designed by Peter Hvidt and O. Mølgaard Nielsen.

tations of the *Biedermeyer* style and other period trends we reach the time around the 1850s when the old craftsmen's guilds were dissolving and industrialism was developing. As in many other countries, it was a time of stylistic confusion.

Crafts Show the Way

About 1900 there was a reversion to individualism. Ornaments and heavily decorated objects were the vogue. Outstanding craftsmen fashioned magnificent pieces to designs by the best artists of the day. The period contributed greatly to the appreciation of quality.

During the period from 1925 to the last world war, our cabinet-making art was influenced by definite social trends. Parallel with traditional inspiration from England ran an interest in substantial, handsome utensils and furnishings for popular use, an aim which it was believed could be achieved only through industrialized production.

But Denmark is and remains a country of crafts, and the development of fine industrial production has not deterred the flowering of our handicraft tradition; on the contrary, the crafts have generally shown the furniture industry the way.

Competition a Powerful Stimulus

In 1927 the Copenhagen 'Cabinet-makers' Guild' held its first annual exhibition. The top members of the craft had joined together for purposes of setting aesthetic standards for the art of cabinet-making, in addition to serving their own economic ends. Gradually, as aims were achieved under the leadership of expert craftsmen, the exhibition (still held annually in the Museum of Arts and Crafts) served almost as a 'laboratory' for the production of suites and individual pieces. Cooperation with architects, designers, and other artists became an important feature of this trend, and competition was a powerful stimulus. The accent on quality was pronounced, and through experiment and competitions a series of practical furniture types—applicable to present-day needs and housing—was achieved.

Quality is a word that crops up again and again in connection with Danish furniture. And quality can, of course, be several things. There is purely technical quality, and to that end the annual exhibition of the cabinet-makers has no doubt strongly contributed. But quality in the technical sense alone is not enough. The term must be wider; it must be related to materials and use, and it must involve certain valuable human charac-

teristics. There must be something natural and obvious about quality. Through this wider concept of quality and through the insistence on quality, we arrive perhaps at something which has been essential to the general success enjoyed by our furniture at its best.

Attention to Detail

Thanks to the special efforts of a whole group of designers, architects and craftsmen, our furniture has today attained a level which brings home furnishings of functional design and high alsthetic quality within the means of the average consumer. Such a 'social-aesthetic' balance is an important asset to a people. Among the many persons who have contributed towards this general trend, it is particularly fitting to pay tribute to the late Professor Kaare Klint, who for many years was the outstanding personality in Danish cabinet-making. Klint was responsible for setting up serious consumer researd as a basis for design. Careful attention to fittings and detail was paid. Surface treatments were determined by the aesthetic effect desired. Klint was a great admirer of English furniture of the Chippendale era. The natural kinship he felt for the fine sense of proportion characteristic of that age enabled him to create a furniture series of rare personal beauty and immediate eye appeal.

After his death, Kaare Klint was succeeded at the Academy of Fine Arts by one of his most ardent disciples, the architect Ole Wanscher. In his great work on the history of the art of furniture, Professor Wanscher displays a fine understanding of construction and design. In collaboration with a firm of cabinetmakers, he is responsible for an extensive line of furniture types which also traces its ancestry back to English period furniture.

For a number of years now, the architects Tove and Edvard Kindt Larsen have organized the annual furniture exhibition. In cooperation with the cabinet-maker Gustav Bertelsen they have developed a highly personal style. The Kindt Larsens have followed a policy which, although steeped in tradition, is so extremely individual in its application that we may consider it an original contribution. Characteristic of these artists is their strong plastic design. Their exhibition work has exerted significant educational influence.

Sculptural Greatness

The architect Finn Juhl started his present collaboration with the cabinet-maker Niels Vodder back in 1937. One of our foremost cabinet-makers, the late Jacob Kjær, once wrote of the Danish designer and his art: 'There is something very personal and exclusive about Finn Juhl's work.' After describing various models, Kjær goes on: 'Furniture of the Finn Juhl type would no doubt command a considerable market under larger-scale conditions such as we cannot offer domestically. He represents a true inspiration to our craft ....' And time has proved Kjær right. Finn Juhl has won a handsome position abroad, particularly in the United States. His chairs are studies in sculptural greatness. It is as if he splits up the chair into in all its component parts, and then goes to work designing each part all over again, sculpturing, building, and assembling the whole into a work of art.

In the period after 1938, two young furniture designers, Børge Mogensen and Hans J. Wegner, have gained prominence and influence. Both of them are formally trained cabinet-makers and both have graduated from the furniture department of the Copenhagen School of Arts and Crafts. There seems to be no doubt that their craft training has given them a knowledge of materials and construction techniques which serves them well in their pursuit of aesthetic design in furniture. They move freely, applying all their imagination to each task. The arrival of this type of artist-craftsmen is an invaluable asset to Danish furniture design. The cabinet-maker Peter Moos also deserves mention. His highly refined, Japanese-influenced art may at times resemble the best of the *Jugend* style. With his capacity for near-sculptural design we are in the borderland of the major arts.

Interest in Industrial Production

Parallel to the flowering of the cabinetmakers' art, there has been an increased interest in Denmark in industrial production. Several of the above-mentioned designers divided their time between factory and smaller workshop collaboration. The borderline between craft and industry is almost invisible. The architects O. Mølgaard Nielsen and Peter Hvidt have also designed excellent industrial furniture. They have worked a great deal with bent wood and veneers. The furniture, and particularly the chairs, of Professor Arne Jacobsen, which have enjoyed such an international success, represent the ultimate in refinement. Arne Jacobsen's fine sense of design has enabled him to blaze new trails.

Over the last decade, Danish furniture has made its way out into the world. On the basis of sound traditions, high standards of production, and aesthetic design, our craftsmen and industries have produced models which people of many countries have come to appreciate.

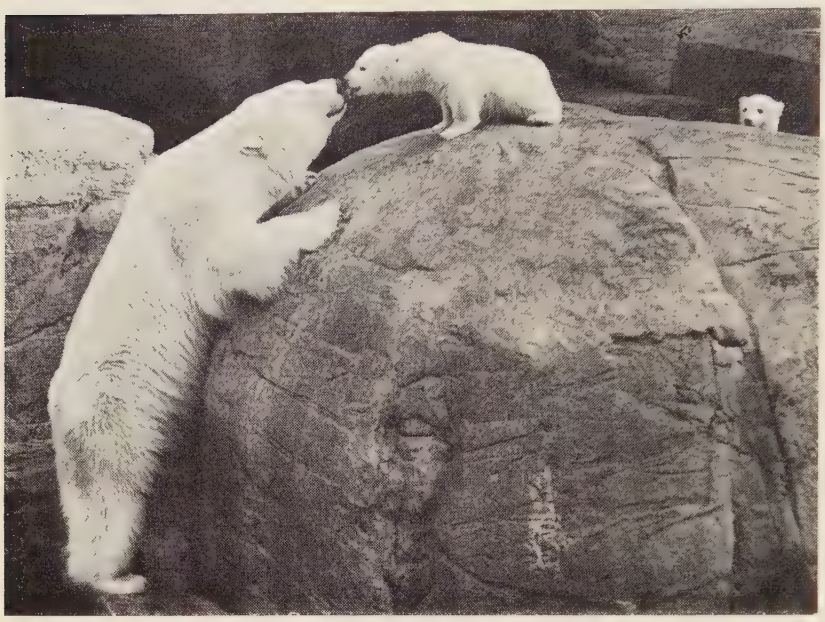
The day that a handsome piece of furniture stands completed in the workshop—solid, bold in design, functional, elegant in outline, materially genuine—on that day the craftsman whose work it is has a feeling of joy as well as of pride. But work well done, besides being pleasing to its creator, commands respect and admiration from others.

The solid teak table and the chairs of oak with wicker seats were designed by Hans J. Wegner

Wild Animals from Copenhagen

By Frank Hernov

A Noah's ark of 'wild' animals, born and bred in captivity far from their natural surroundings, have been exported during the past fifty years from the Copenhagen Zoo to zoological gardens in many countries



Polar bear enjoys the spring with her cub

Just as Danish industry sends its products all over the world though Denmark is a country without raw materials, so, too, an export business has been built up in animals which do not live wild in the Danish countryside.

Denmark exports giraffes, hippopotamuses, lions, and tigers. Even rare animals like ounces, which are hard to find in their native Himalayas, are exported from the 101-year-old Zoo in Copenhagen (whose patron is His Majesty King Frederik IX).

The exports began modestly 50 years ago when three home-bred elephants were sold.

A special chapter in this export story is that of 36-year-old Maren, a lusty hippopotamus that has had 15 young ones. All were sound and healthy, and all of them have been exported. Maren's offspring have gone far: to the United States, France, Germany, Holland, Brazil, Argentina—and the Soviet Union. On average the well-built young hippopotamuses have fetched 8,000 kroner apiece, and so Maren has done her bit in improving the balance of payments.

Ounces (or snow leopards) are, as indicated, a rarity, and ounces breeding in captivity were a world sensation. It began in the Copenhagen Zoo, and the first cubs were exported. The director of the Zoo, Mr. Svend Andersen, has since disclosed the secret of how ounces were made to breed. Partly it was a case of a special feeding plan. Now that the secret is out, ounces have been bred at Whipsnade in England and in Lincoln Park, Chicago, but the Copenhagen Zoo still exports them.

The stock of giraffes in Copenhagen has been the one best known among the world's zoological gardens, and altogether 15 giraffes have been exported at an average price of 15,000 kroner.

Lions not Rated High

Lions and tigers have been exported by the score but are nothing to talk about: lion cubs fetch next to nothing and a horse is more expensive than a lion. Tigers are priced higher. The Copenhagen Zoo has sold 28 tiger cubs at prices ranging between 5,000 and 10,000 kroner.

Copenhagen also has a good international name for polar bears. Six were sold last year.

Further, it should be mentioned that the European bison of the United States originates from Denmark. There were no pure-bred bison in the United States, and so a good pair were bought in Copenhagen, at a price of 7,000 dollars. The animals first spent two months in quarantine in Hamburg and then another month in New York, so that the costs soared before they set their hooves on American soil.

Birds from the Zoo also get about. Pretoria wanted three swans. An application to Copenhagen—and the order was met.

There was to be a Hans Andersen festival in Tokyo and the Japanese sponsors had to have a stork. They wrote to Copenhagen, and on the festival day in Tokyo the stork was strutting about on the spot. It had been carried there, not by its own wings but by those of an aeroplane—a real Andersen fairy tale.

Maren, the hippopotamus, with her offspring Rasmus in the Copenhagen Zoo

Pert of the Kierkegaard Collection. The picture in the middle is a sketch of Kierkegaard and round it hang some of his favourite pipes. Lying on the table are the writer's door-keys

A Kierkegaard Museum

By Jørgen Buch

A collection of Kierkegaard relics, treasures showing how the Danish author and philosopher lived and worked, has been established in the Copenhagen City Museum. Below, one of its initiators explains its background and the desire to give Kierkegaard the same sort of memorial as the other celebrated Dane, Hans Christian Andersen

To non-Danes—as also to many Danes—it is a strange thought that Søren Kierkegaard, one of Denmark's great names in international culture, should have made his literary *début* with an attack on Hans Christian Andersen, the other renowned Dane of the nineteenth century.

That *début* took place in 1838. In the work published, *From the Papers of One Still Living*, he criticized his well-known fellow-writer for his lack of a firm view of life, while making ironical play of Andersen's banal and mawkish conception of genius:

Kierkegaard's fiancée, Regine Olsen

'Genius is not a tallow dip that goes out before a wind, but a fire which the gale only challenges'.

In this first work Kierkegaard thus said quite a lot about a man's chosen approach to life and the contemporary, naively romantic cult of genius—which Andersen himself fed and nourished.

A National Duty

No one in after years, however, has found anything unnatural in the fact that Hans Andersen—whose life bears much resemblance to a fairy-tale—should be commemorated in a museum which, so to speak, reflects the fairy-tale aspects of Andersen's life. In this museum we meet the little shoemaker's son from Odense, follow him during his schooling and first difficult years in Copenhagen—to see the ugly duckling afterwards develop into a swan. Genius unfolds itself.

On the occasion of a well-presented exhibition at the Royal Library in Copenhagen in 1955 to mark the 100th anniversary of the death of Søren Kierkegaard the Minister of Education at the time, Mr. Julius Bomholt, said that it was surely a national duty to collect and preserve the existing relics of Kierkegaard—just as in the Hans Andersen Museum at Odense a monument had been erected to the life and work of the great fairy-tale writer.

A group of interested persons had been collecting Kierkegaard relics since 1950, and in the course of ten years they succeeded—often by means of much research—in acquiring the treasures intended to form the basis of the Kierkegaard collection. This was duly opened to the public, in the Copenhagen City Museum, on May 11, 1960.

What it was desired to display was the story of Søren Kierkegaard as man and author. Exhibit by exhibit, case by case, the intention was to illustrate his life and writings by means of the objects which together relate to the whole of the extensive Kierkegaard canon.

The Upheaval

The external events which gave impetus and direction to his activity have thus had importance not only for his actual authorship but also for the collection (or the museum) it was desired to create.

Four experiences left their traces on Kierkegaard's life and production. These events—as seen from a distance—appear so unimportant that it is scarcely conceivable they could occasion the greatest literary and philosophical earthquake ever recorded on the cultural seismograph of Denmark.

It is as an earthquake that Kierkegaard himself describes the first event that was to affect his life and authorship. In his twenty-second year he had begun keeping a 'journal' of his thoughts and what he read, a singular and incomparable diary. In this he recorded the upheaval, which is connected, undoubtedly, with a discovery concerning his father:

'It was then that the great earthquake occurred, the awful upheaval which suddenly forced itself upon me as a new and infallible law interpreting all phenomena. I had a foreboding that my father's great age was not a divine blessing but rather a curse; that the great gifts of our family were there only for mutual affliction. I felt the stillness of death gather about me when in my father I saw an unhappy man who would outlive us all, a cross on the grave of all my own hopes.'

Kierkegaard's spectacle case. According to tradition, it was fashioned by the delicate hands of Regine Olsen

Everything suggests that Kierkegaard about 1835 had discovered that as a poor shepherd boy his father had cursed God. The relationship to his father and the father's gloomy outlook on life left deep traces on the son's life and work—for which reason relics of the father have now, for the first time, been collected.

Kierkegaard's Engagement

Another experience that was to affect his life and writings had the same character of an upheaval. Having in October 1841 broken off his year-old engagement with the charming girl Regine Olsen, Kierkegaard devoted himself, for the rest of his life, to his work; but Regine's importance to this work remained just as urgent down to his death, despite the break.

He turned the tragic story of the engagement to account in two short works, *The Repetition* and *Guilty—Not Guilty*, and other works, too, were inspired by the grievous considerations connected with the break. Kierkegaard believed that he could not live with this young woman because of his own assumption: that the time was too precious for marriage. But he never forgot her, and he ascribed to her in the end all the works which—book by book—he placed as they came out in the rosewood case that is now in the Kierkegaard collection together with a fine contemporary portrait of Regine Olsen.

Two Bitter Experiences

Finally, in the last decade of his life Kierkegaard was to experience two events which were to tax his physical and psychological powers to the utmost, while also leaving, in their turn, dual traces on his life and work.

In 1845 he himself provoked the polemical weekly *Corsaren* with the remark: 'May I soon get into *Corsaren!*' He had not foreseen the ridicule he thus invited. With diabolocal satire the editor, Meir Goldschmidt, made Kierkegaard the most caricatured personage in town—an oddity laughed at by street-walkers and urchins. Kierkegaard felt himself a martyr, 'laughed to death', but, at the same time, his Christian fervour was intensified, as a long succession of works testify.

As a final 'life-giving shock' came the experience of a funeral oration over Bishop Mynster delivered by his successor, Martensen, in which the late bishop was called 'a witness to the truth'. In line with his deeply felt Christianity, Kierkegaard made a public protest. After expressing the strongest indignation and contempt, he set forth his own requirements of a witness to the truth, which implied martyrdom, or 'the witness of blood'. It was the signal for one of the most violent Church disputes in Danish history—a dispute which sapped Kierkegaard's energies and finally contributed to his death in 1855.

A Big Task Accomplished

This is the Kierkegaard we now find in the new collection, in a section which shows him at work, and which is illustrated with manuscripts and first editions. His great place in world literature is illustrated by means of many translations, a selection that conveys some impression of his great influence and renown, even in remote parts of the world. This section, it is hoped, will soon be greatly extended, thus reflecting Kierkegaard's fast growing position in world thought.

The establishment of the Kierkegaard collection indicates

Kierkegaard's famous rosewood cabinet, in which he stored copies of his collected works for Regine Olsen

a big task accomplished, a task in which many people have had a part. It also reflects a wide understanding of the importance of this national mission by an equal number of donors, without whose readily given assistance this nucleus of a Kierkegaard museum would not have been possible.

In this connection we may rejoice that the approach was not inspired by the æsthete in Kierkegaard's work who expresses the following unsympathetic sentiments:

'I don't feel like it. I don't feel like riding, it's too fast a motion; I don't feel like walking, it's too exhausting. I don't feel like lying down; for either I should have to stay lying down, and I don't feel like that, or I should have to get up again, and I don't feel like that either. *Summa summarum:* I don't feel like doing anything.'

New Organs Inspired by Old Ones

By Niels Friis

During the last generation Denmark has made a pioneer contribution in organ-building, with the result that, since the war, Danish organs have become well known in other countries

Since the war, Denmark has become known as an organ-building country. Old organs have been studied and many countries have gone in for new ones which they have inspired. There are not many old organs in Denmark, though one, the Compenius organ, a Renaissance instrument in the chapel of Frederiksborg Palace, is world-famous. It is for her new organs that she has become noted, owing to a distinctive pioneering contribution.

Organ-building in Denmark, as in Northern Europe generally, reached its peak in the Baroque period, when great masters built magnificent instruments which posterity has found ideal for the music of Bach and our Danish Buxtehude.

This climax was followed by a slow but steady decline in the art, which led eventually, in the Romantic period, to sheer decadence. The organ gradually lost its independent character and as its tone was romanticized it became a mere copy of the orchestra. At the same time, modern electric and pneumatic techniques superseded the old, superb classical mechanism.

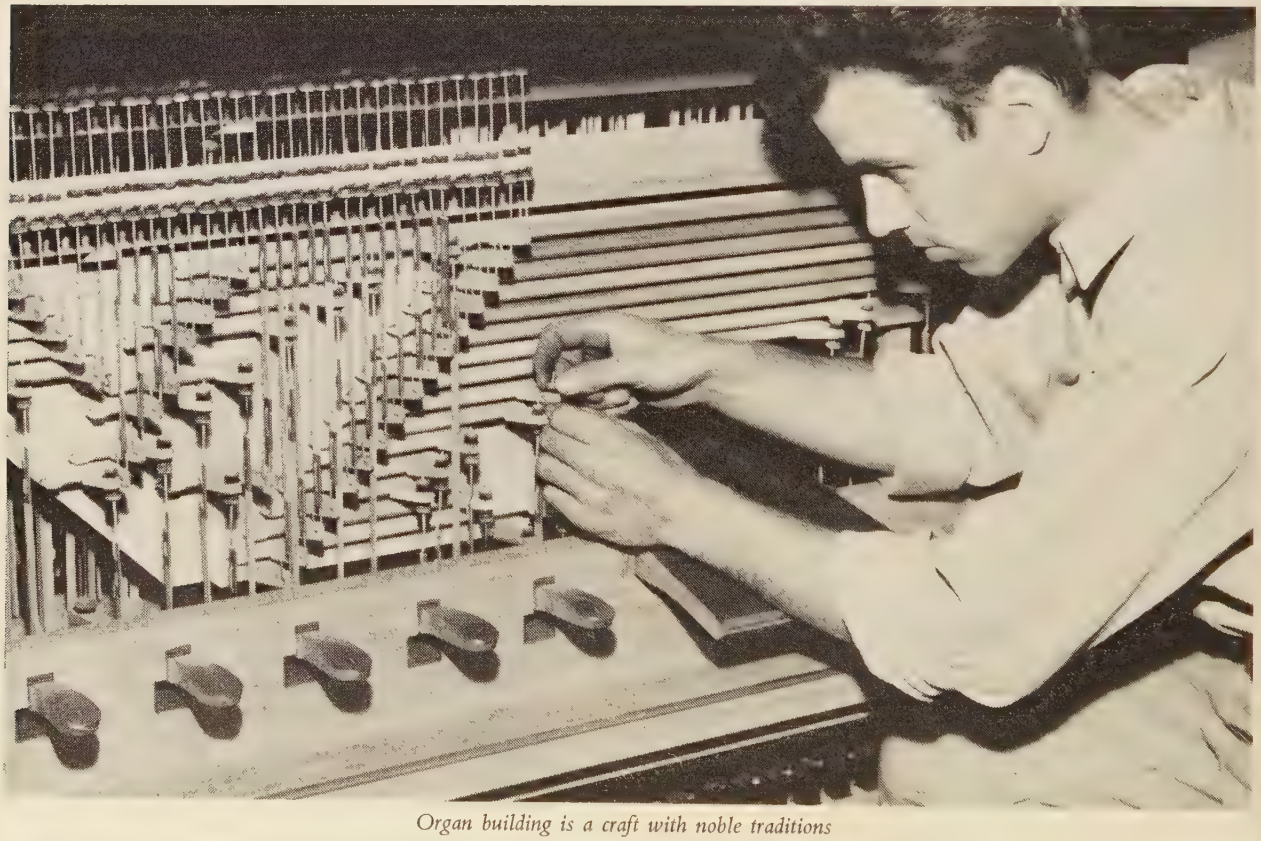
A New Trend Develops

The reaction came from Dr. Albert Schweitzer, the renowned physician, missionary, philosopher, theologian—and organist. His opinions were made known more than half a century ago. Little attention was paid to his theories at first, firmly based though they were on a profound knowledge of organ-building in both France and Germany. But little by little their correctness was recognized, and one of the first countries to accept them was Denmark, where they had the support of his close friend, Emilius Bangert, afterwards precentor of Roskilde Cathedral.

The inspiration was to lead to a renascence in the art of organ-building in Denmark. It was decided in the nineteen-twenties to alter and extend the organs in the cathedrals at Roskilde and Aarhus, both of which incorporated tonal material dating from interesting periods. Dr. Schweitzer, then a frequent visitor to Denmark, cooperated with Bangert in planning the work and made his influence felt by insisting that the old parts should be preserved and incorporated in the new. The man who translated his theories into practice in the actual building of the organs, as also afterwards in the restoration of other organs abroad, was Theodor Frobenius.

On Classical Foundations

By this time a parallel trend had reached Denmark, known as the new, or modern, organ movement, though indeed it is anything but 'modern', since it postulates that after the aberrations of the Romantic period the organ must reassert its independence as an instrument on classical foundations. The movement arose in the early nineteen-twenties, and its point of departure was the great organ of St. Jacob's Church in Hamburg, which was built, at the close of the seventeenth century, by one of the great Baroque masters, Arp Schnitger, and has been fairly well preserved. Regarded as an important 'find', this organ soon stood out



Organ building is a craft with noble traditions

This organ was built for Kyrkslät Church at Porkala, Finland

The organ in St. Nicholas', Utrecht, built in Denmark in 1956

as a shining example of what an organ ought to be.

The new movement reached Denmark hard on the heels of the hymn reform pioneered by Thomas Laub, which was a reaction against Romanticism in Church music. The first fruits of the movement were seen in Denmark about the middle of the nineteen-twenties, particularly, in the first instance, in the restored organ of the church where Laub was organist, Holmens Church in Copenhagen. The pioneer of the new movement in Denmark was the late Sybrand Zachariassen, head of the very old organ-building works at Aabenraa.

Back to the Classical Model

Albert Schweitzer's demand for a return to the tonal beauty of the old organs had thus been observed, more radically indeed than he had originally envisaged. Another milestone in the history of Danish organ-building was the new organ for Nikolaj Church in Copenhagen, built in 1930.

Tonally as well as technically this was closely modelled on classical lines: tonally in employing only stops of Baroque type; technically in returning to the really old and purely mechanical system of playing, whose artistic superiority to all modern forms was by now being realized. Danish organ-building adhered to this course from then on.

The development was rounded off when, after the tonal and technical features, the constructional ones were replanned and renewed on the lines of classical organ-building. Every large organ is made up of several 'departments', each played from its own keyboard. The separate departments were clearly reflected in the exterior of the old instruments. The principal organ was behind the great central panel, the pedal organ in the two tall flanking side towers, the back positive as a small separate organ behind the player's back in the balustrade facing the church, and so on.

This pregnant division, which had lapsed in the period of decadence, was now revived. The separate departments, each enclosed in its own organ case, was given due prominence in the design and construction.

Modern Organs Abroad

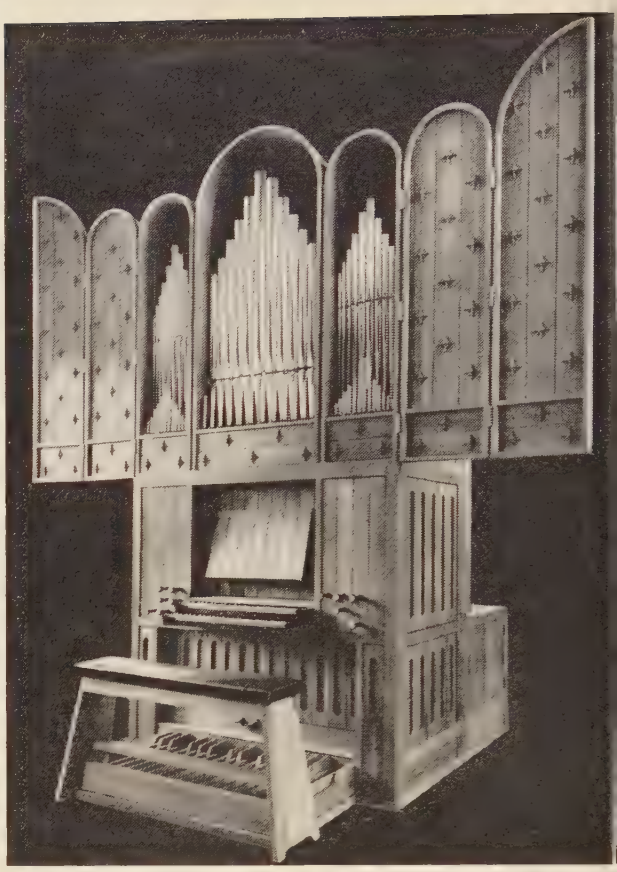
The result was handsome and distinctive organ fronts, of which it might be said, as it could be said of the tonal qualities, that they were a new feature inspired by an old one. Classical organ fronts follow the changing period styles: Gothic, Renaissance, Baroque, and Rococo. There could be no question of copying these in the new organ fronts; but by consistently upholding the fundamental classical principles of construction the new period developed its own organ fronts. Danish organ-builders, in association to some extent with leading architects, gave great thought to these problems—with such success that Denmark has proved a source of inspiration for other countries.

Altogether, she can claim to have made a pioneer contribution to organ-building during the last generation, strange and paradoxical though it may seem that this contribution, of the widest perspective, was not made in the cultural centre whence it drew its original inspiration.

Danish Organs Abroad

Other countries have recognized Denmark's success in this field, especially since the war, with the result that Danish organs, among them many big ones, are now in use in a large number of countries. This is particularly true of the other countries of Scandinavia—Norway, Sweden, Iceland, and Finland—where the trend has not been so rapid and where, therefore, Danish organs have brought a real renewal. But there are also Danish organs in Holland—an old organ country if ever there was one—as well as Germany, a country now entering the field herself, and in Paris, London, even America.

Such is the high reputation of Danish organ-building that a number of countries have drawn upon its resources for



The organ on the left, built in oak, stands in Ruds Chapel at Karlstad, Sweden. The one on the right, dating from 1955, is in the Frederik's Church in Paris. It is the only organ in France built in the Nordic style and persons interested in organ building travel long distances to study it.

the restoration of valuable historical instruments. Danish specialists have been at work in Sweden, where there are a number of old organs, including the medieval instrument from St. Peter's Church, Malmö, which is one of those that have been restored by Danish organ-builders. They have also been given commissions in Holland, where, at the present moment, a celebrated instrument, the mighty organ in the Groote Kerk at Haarlem, is being restored by Danish experts.

The Latest Conquest

America is the latest conquest of Danish organ-builders. Interest in the recreated Danish classical style is very great, different though it is from the style generally prevailing there. As time goes on even large Danish organs will travel thus far, though there are more problems involved in travel over such long distances. An organ is not a factory-made article that can be packed in a crate and despatched as ordinary merchandise. In accordance with the fine traditions of the art, every Danish organ is an individual instrument, carefully adapted to the room it is to be played in—an adaptation that must be made, down to the minutest musical detail, on the spot.

It is scarcely an exaggeration to say that of all the many forms of applied art for which Denmark is celebrated organ-building, in a way, is the most distinctive. It is applied art in a double sense: technically, in the matter of construction, and not least tonally; in which sense, for the result to be fully successful, there must be the closest familiarity with the proud traditions and the essential secrets of this noble craft. To inspect one of the beautiful Danish organs of today—whether in Denmark or in another country—to admire its stylistic assurance and clarity of tone, is to understand their fine reputation.

These instruments, which have inspired certain people in other countries to speak of a distinctive Danish style of organ, are truly characteristic of Danish production on the highest level of craftsmanship. There is every good reason for believing that Danish organs will continue to follow up their international success.

40th Anniversary

A unique experiment in international education was started in 1920 by Peter Manniche. He felt the nations had to meet after the war and get to understand each other. The Danish Folk School idea provided the frame with courses of five months in winter, three months in spring and two weeks in August. The teaching was to be in Danish, English, German or French. English became the dominant language.

He started out with little money but great enthusiasm. At half a work camp and half a Folk School the students and staff together converted a large farm into a College and gifts, earnings and State grant gradually added more buildings.

Dr. Manniche resigned in 1954 and handed over to Mr. Vagn Fenger.

Today the College is internationally known and State-recognized. It teaches subjects both at Folk School and University level. It is always full. About 175 long-course and 1200 short-course students attend yearly. Both staff and students are international; half the students are Danes. The foreign students average one-third from Europe, one-third from the Americas and one-third from the rest of the world. Liberal arts, languages, international affairs, cultural Folk School subjects and information about Denmark are the main subjects.

All Sorts of Biscuits

By Vagn Heiselberg

In recent years the Danish biscuit industry has undergone a great expansion: originally a local industry catering only for the home market, it now exports 30–40 per cent of its output to many countries

At the time when Danish farmers were combining to industrialize and develop their production in order to improve its marketing possibilities, a skilful young baker and a far-sighted commercial traveller formed a partnership that laid the foundations of a food-processing business which, though it has attracted less attention than some other food lines, has especially after the war achieved considerable success and today probably exports a a third of its total output.

Adolph Jensen was the baker and Adolph Møller the salesman who, in 1885, established an industrial bakery and started the factory production of biscuits, now so successful. At first they concentrated their marketing in the Copenhagen vegetable market and at two popular excursions places. Their cakes and ginger breads were in such great demand that the two young Adolphs at one time had to buy from their competitors in order to meet it.

This meant still more industrialization; but it may be typical of the transitional period at the end of the last century that the baker was inclined to be more sceptical of it than was the salesman. Like many a craftsman in those days he felt that quality would suffer. At the same time, industrialization was a necessity if the requirements of an expanding population were to be met. The salesman realized the need for a large-scale production of quality goods. Thus it was he who developed the business, while his partner returned to his craftsmanship. They parted friends.

Industrialized from the Start

It is characteristic of the entire development that the Danish biscuit firm was organized on industrial lines from the start. The old-fashioned home bakery had disappeared. Now, the Danish biscuit industry is dominated by four large factories. In pace with modern development and increasing technical demands they have extended and modernized their businesses, making general use of the conveyor principle.

Their production is based on the supply of Danish cereals, butter and lard, and sugar. With these ingredients mixed in the correct proportions in large stainless-steel vats into the desired dough, the production of biscuits follows in an endless stream, rationalized and mechanized to an extent hardly believable to the layman. The processes include rolling and cutting out, baking in 200-foot ovens, chocolate-coating, cream-filling, grading, and packing.

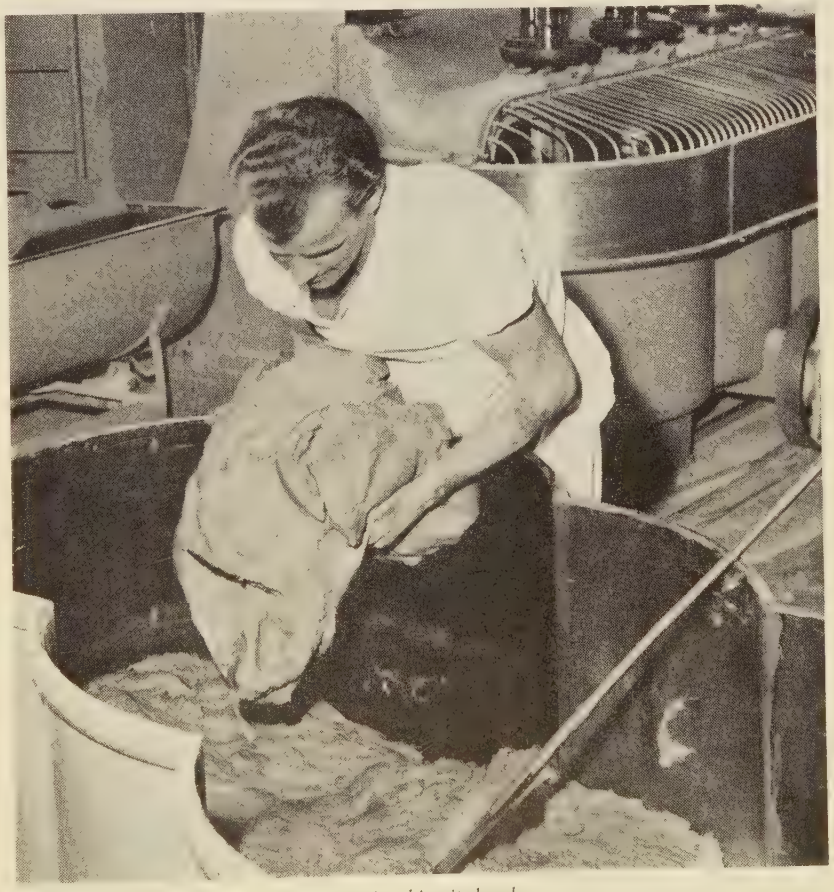
Special Packaging

Whereas before the war the Danish factories produced almost entirely for domestic consumption, they now export biscuits and wafers to about a hundred countries in all parts of the world.

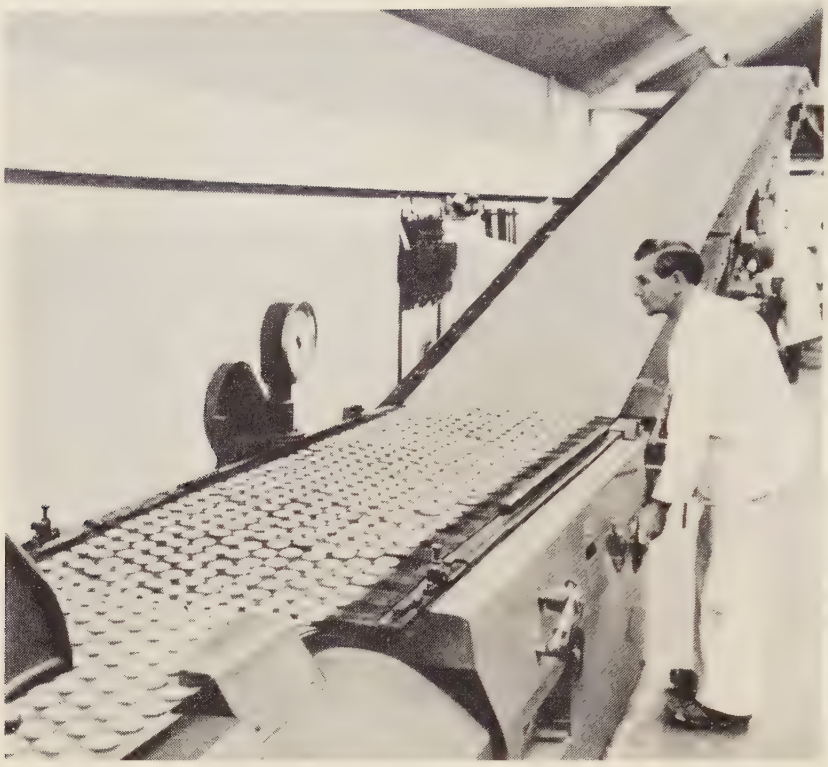
Leading exporters ascribe the success, besides the favourable situation at the end of the war, to great adaptability to the changing demands of individual markets. Thus one of the factories has gained a big market in an African country by producing a special pack which could be sold for the coin usually given to children. It is characteristic, too, of many of the markets that the native populations are increasingly the biggest customers.

The fact that Danish biscuits have become so popular in so many countries has given fresh problems. The climate and the eating habits of the domestic market were known factors, as were the transport and storage conditions.

The conditions in many of the new markets were quite different. The many



Mixing biscuit dough



After baking, the biscuits are cooled on long conveyor belts. When ready, they are packed by nimble hands

extra demands involved have, however, all been met, like the varying health requirements of different countries. That this is the case is indicated by the yearly increase in the export figures.

A 5,000-Mile Heap

Alongside the export of this fully industrialized production have gone exports of a number of Danish specialities that at first sight might not seem suitable for export, because of their restricted keeping qualities. A number of countries have shown an increasing interest in Danish fresh biscuits (cookies), fruit cakes, Madeira cakes, spice cakes and ginger breads, sponge layers, Swiss rolls, and even the celebrated Danish pastries. The United States has proved the biggest market for these.

This branch of the industry is still very much a craftsman's trade, though it is now to a large extent semi-industrialized and with increasing sales is being increasingly mechanized.

A small impression of the annual biscuit production is conveyed by the fact that, converted into Marie biscuits, it would make a heap 5,000 miles high.

Greatly Expanding Consumption

As for Marie biscuits, there has been a good deal of discussion about the origin of this international name for a well-known biscuit. According to one theory, it was named after Marie Antoinette. A more plausible explanation is that British biscuit makers gave it that name in 1875 on the occasion of the marriage of Alfred, Duke of Edingburgh, to Marie, daughter of the Czar Alexander. In Denmark, too, royal celebrations have been the occasions for introducing new lines or wrappings. For example, the first packaged Danish biscuits were put on the market on the occasion of the silver wedding of King Christian X and Queen Alexandrine in 1937. Previous to that, all biscuits were sold by loose weight. Now they are all packaged.

There is one thing which Danish biscuit makers are proud of. By means of mechanization and rationalization they have succeeded in keeping down the prices, so that the increase has amounted to only about one-half of the increase in practically all other consumer goods. This fact, together with the rising standards of living in many countries and the decline in cake-making by housewives, helps to explain the great expansion in world sales, an expansion in which the Danish industry has managed to secure a growing share.

Bacon Research and Training

By Arne Christiansen

The Danish bacon factories are to open a Training College for factory employees associated with the Danish Meat Research Institute at Roskilde (twenty miles from Copenhagen), in order that research and training in the bacon and meat production industry may go hand in hand

After the war, the cooperative and commercial bacon factories established a fund with the object of consolidating the industry, and with it the quality of the production, by providing, among other things, an experimental bacon factory with an associated laboratory and bacon factory and a training college for factory employees.

The work of the Danish Meat Research Institute, opened in 1954, has included the continuation of educational activities started in 1944 at Odense by the Bacon Control Service. But it was soon apparent that the available accommodation —a single school room—was far from adequate.

The provision of a separate training college for factory employees was therefore the fund's next objective. The committee has recommended that this should take place in connection with the transfer of apprenticehip training from evening to day schools, a measure which must be carried through by 1964.

A Group of Buildings

The project, which was drawn up by Mr. Preben Hansen, Government Building Inspector, comprises two sites: the training college itself, at Søndre Ringvej, Roskilde; and a slaughtery department attached to Roskilde Cooperative Bacon Factory.

The college will consist of a group of buildings linked by lightly constructed passage-ways. It will comprise a main block containing offices, a lecture hall, library, and dining-room, two classroom blocks, three hostels, a sausage-making department, a service building, and four residences for the principal, lecturers, and housekeeper.

Between the main block and the classroom blocks there will be garden enclosures, contained on the south by the hostel gables, and on the north by pergolas. The general layout will take the form of a park, and will incorporate a former gravel pit.

Objects of the College

The establishment budget amounts to about 10 million kroner, exclusive of the slaughtery department, which will be attached to Roskilde Cooperative Bacon Factory, where it will be erected in the grounds close to the factory's pig slaughtery and cold store.

The new main block will have a piggery, a college slaughtery, a department for cleaning casings, and a staff room. Various secondary premises will be provided in the intermediate building. The establishment budget for this amounts to 2 million kroner.

It is the purpose of the college, in association with the Danish Meat Research Institute, to promote the technical development of Danish bacon and meat production centres.

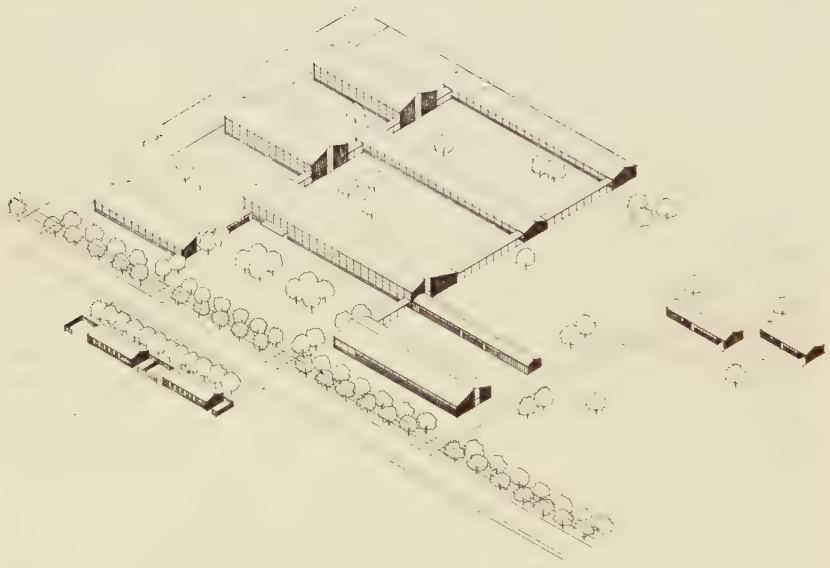
The objects have been formulated as follows:

(1) To secure standardized theoretical training of the industry's skilled personnel by providing the training laid down by the joint training committee.

(2) To promote vocational skill and

Extensive research is carried out at this Institute. The picture shows a bacon curing experiment

Present buildings of the Danish Meat Research Institute



Architect's drawing of the projected training school for slaughterhouse personnel

development among the industry's manual workers and salaried staff by means of elementary training in bacon and meat production techniques, as well as by advanced technical and industrial training.

(3) To provide supplementary training for students from other educational establishments, in order to qualify them for appointments at bacon factories and meat production centres.

Under a recent Apprenticeship Act, all apprenticeship training must be transferred from evening to day schools by 1964. The industry's joint training committee has decided that this training shall take place at the bacon factories training college in the case of industrially employed apprentices.

As planned, apprentices will take a six-weeks' course during their first, second, and third years, comprising 270 periods a year and covering the following subjects: technical Danish, arithmetic, trade knowledge, civics, and practical exercises.

The day school will have accommodation for bacon, sausage, and casings apprentices, numbering about 850 regulation apprentices all told. Theoretical instruction will be organided by year-groups in classes of 16 students. Practical instruction will be given in groups of eight.

The three categories of skilled bacon-factory men, sausage-makers, and casing workers will have supplementary courses of an elementary nature, and there will be special courses for certain specialized operations.

As in the case of skilled apprentices, so for unskilled workers there will be both elementary and more specialized courses.

A course for supervisors intended as an extension of the general courses will be of a vocational and technical character and will include some instruction in managerial techniques. It is intended that this course shall form a preliminary stage in the training of supervisors, for whom there will be a special course, organized in three stages. Advanced instruction will be given in technical and industrial training, supplemented by management training, labour relations, and related subjects.

Finally, there will be conferences and courses for managers and supervisors, like those which have previously been held at the Research Institute.

The chairman of the fund and the building committee is Mr. J. Dons Christensen, known to British friends as the chairman of the committee of the Danish Bacon Factories Export Association.

Plastics in Daily Life

By Henning Pedersen

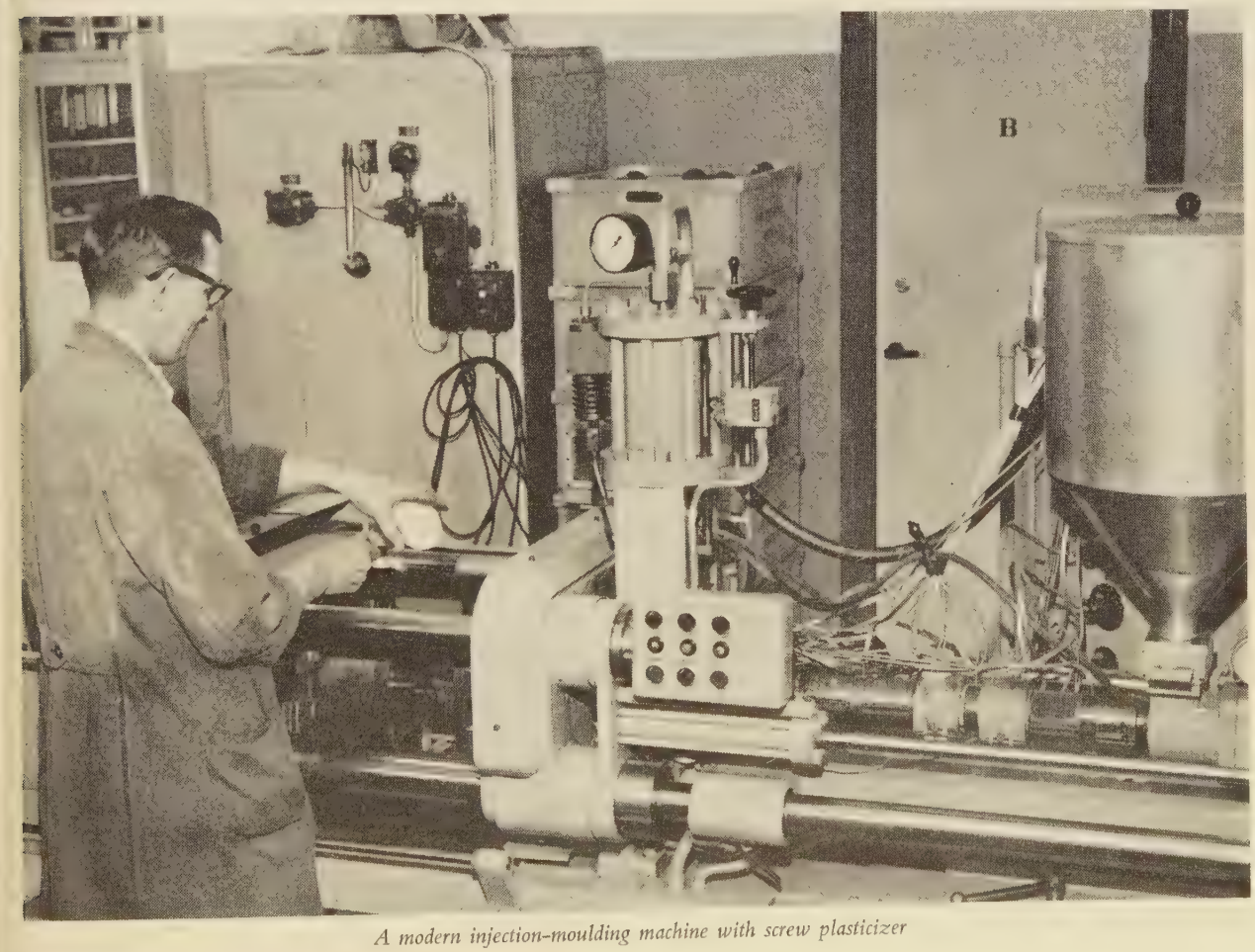
The Danish plastics industry has developed rapidly in the last few years, as plastics have become an essential feature of our daily life. Here, in a production which calls for great skill and accuracy of workmanship, Denmark's traditional standards of craftsmanship have stood her in good stead

Paper-thin gloves for the operating theatre, manufactured by the hundred thousand, are one of the export successes of the Danish plastics industry in a period that has been called the atomic or space age, but which could equally be called the plastics age. Denmark also exports bowls, pails, and other domestic articles of plastic, as well as glossy transparent material known as plastic film and used for a wide range of goods from food packaging to dress bags. A fourth line comprises the precision articles made from nylon, which form components in a wide selection of modern industrial products.

The tourist or businessman arriving at Copenhagen Airport runs over windows cemented into the asphalt. Placed above some of the landing lights, they are made from one of the modern plastic materials, known as acrylic resin. Sheets of this material – 35-40 millimetres (1.4-1.6 inches) thick and about half a square metre (5.4 square feet) in area – are also a big export line. The same is true of the domes used for overhead lighting in airport buildings – likewise of acrylic resin. It is a material that can be moulded drawn, or blown in a great range of shapes – with the effect, in the last-named case, that a walk on one of the building roofs suggests a lunar exploration.

Plastics have also become an essential part of the lives of people for whom the aeroplane is not a means of daily transport, to such an extent that one no longer notices it but accepts it as an ordinary and pleasant fact, lightening the housewife's work. Her pails and bowls are easier to clean. These, too, have become a successful export line. They have the further advantage over utensils made from the traditional materials that they do not suffer wear and tear if a little water is left in them after washing.

A number of the parts in a domestic refrigerator are made of plastic. Salads, vegetables, and pickles are packed in plastic film – which is also exported from Denmark. Butter and margarine are kept in plastic boxes. Fruit-juice bottles made of plastic have the advantage that they are unbreakable. Ketchup, mustard, and



A modern injection-moulding machine with screw plasticizer

Examples of medical equipment made of plastics. (From blood-transfusion sets to sterilizable packaging films). Bottom: The picture shows a large propeller blade for a fishing vessel and a complete ship's propeller made up of three loose blades

so on – these, too, are now put up i plastic containers.

Children's mugs are made of these nev materials. So are hair brushes, combs, an other toilet goods. Party dresses are store in plastic bags, and so are party shoe Many ladies' handbags are of plastic and so closely resemble leather that the can easily be mistaken for it.

Early success with domestic utensil was not the only one. Plastic toys becam a big line soon after the war. But i started before then, with the compressio moulding of 'Bakelite' (phenolic resin materials and injection moulding of othe plastic materials in the 1930s. Since the production has changed character con siderably, while attaining to dimension never dreamt of before. Although alread about 40 years old, the Danish plastic industry is one of the youngest Danis industries; it expanded immensely whe Denmark realized the potentialities of raw materials that had been developed fo military purposes during the war.

From Britain came polyethylene, used among other things, in the making o radar cables; from Germany, polyviny chloride (PVC), an oily material employe before the war in the manufacture o raincoats and many other articles. This material, among others, was developed and applied in a range of everyday articles.

In the case of toys, the foundations were so well laid that a couple of large factories have become internationally known both by direct exports of building sets and toy cars and by licensed production in many countries.

On an Equal Footing

A Danish success in this field was no foregone conclusion. Danish manufacturers had to purchase both raw materials and machinery in the same markets—mainly Britain and Germany—as everyone else. That is to say, the terms were completely equal: Denmark had no particular advantages. Two things proved vital. First, luck and good management: Danish firms succeeded in obtaining the raw materials at favourable prices. Secondly, traditional Danish craftsmanship stood them in good stead.

The making of moulds and auxiliary equipment for the plastics industry calls for great care and accuracy by the skilled workers engaged in this branch of production. Moreover, the new industry was able to produce the tools at a cost lower than they could be obtained in foreign currency.

Experience gained in the initial production provided a basis for experiments with

new materials. The next phase was pipe and tube production. Plastic pipes are weather-resistant and non-corrosive. They can be used for drinking-water, in the food industry and elsewhere. Their one drawback is that, so far, they cannot be used for hot liquids. The entire piping system at the Danish atomic research station at Risø is of plastic. The photo-engraving industry of Denmark employs exclusively ancilleries made of plastic. Plastics are also ideal for roof guttering and downpipes; in the building sector they are becoming a daily aid for workmen employed on installations and repairs.

Exports of building materials are restricted by transport costs. But some export of acrylic-resin sheets takes place to Norway, Sweden, and Finland, as well as to West Germany and the United Kingdom. They are used in the making of shields for buses, aeroplanes, terraces, and so on. Another export group consists of polyethylene film for food packaging and dress wardrobe bags; yet another, of PVC sheeting for table-cloths, curtains, etc. These are followed by the household articles already referred to, and finally by the precision goods.

Nylon Ship Propellers

The last-named include cog-wheels as used in Danish office machinery, which is also an important export line, as well as the units and parts of calculating machines. They may be tiny fittings, which because they are of plastic are virtually everlasting corresponding metal components and do not require lubricating. For a number of years one Danish firm has been making ships' propellers from nylon —long enough for them to be declared safe for insurance by Lloyds.

Sections of the industry sell other specialized articles abroad, including blood-transfusion sets—a production calling for the greatest accuracy and care by the makers.

Plastics are far commoner than is usually realized. Street-lamp fittings are made from polyesters reinforced with glass fibres, a combination which makes them heat-resistant and fully non-corrosive. Beer bottles have a small transparent plastic 'cork' in the cap. Plant-pots are made from plastic. The official Danish Bureau of Standards is at present engaged in standardizing this article, as it has done in the case of pipes of PVC. For some years Danish firms have been making sports boats of plastic. New applications for plastic materials are constantly being found.

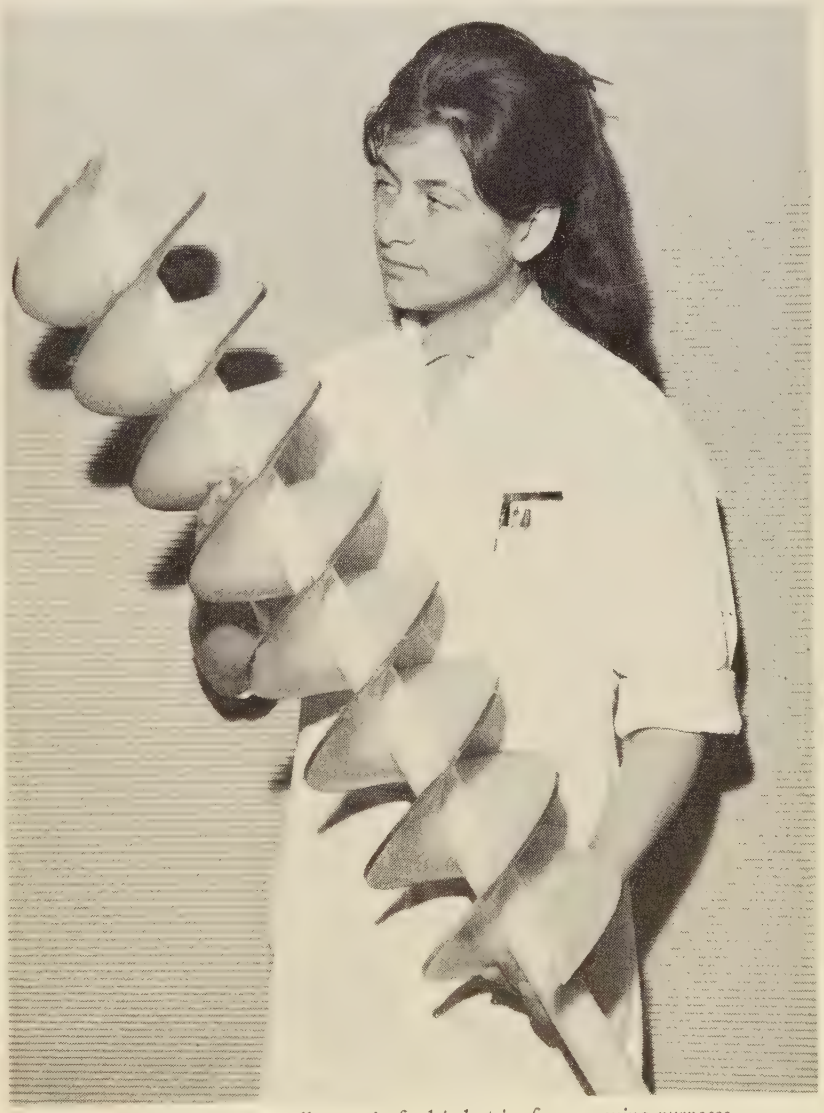
So far, Denmark has obtained, so to say, all her raw materials by importing them. At present a big Danish concern is cooperating with a British firm in organizing a Danish production of polyethylene. An oil refinery now in course of erection may later on take up the production of petro-chemicals for the plastics industry.

The plastics age has given us silent door locks, hinges that do not need oiling, gay toys that do not break, unbreakable combs, rustless guttering and pipes, lightweight protective helmets, ships' propellers, soundless gear-wheels. Plastics replace traditional materials like metal, glass, wool, silk, cardboard, paper, rubber, etc., because of their outstanding properties.

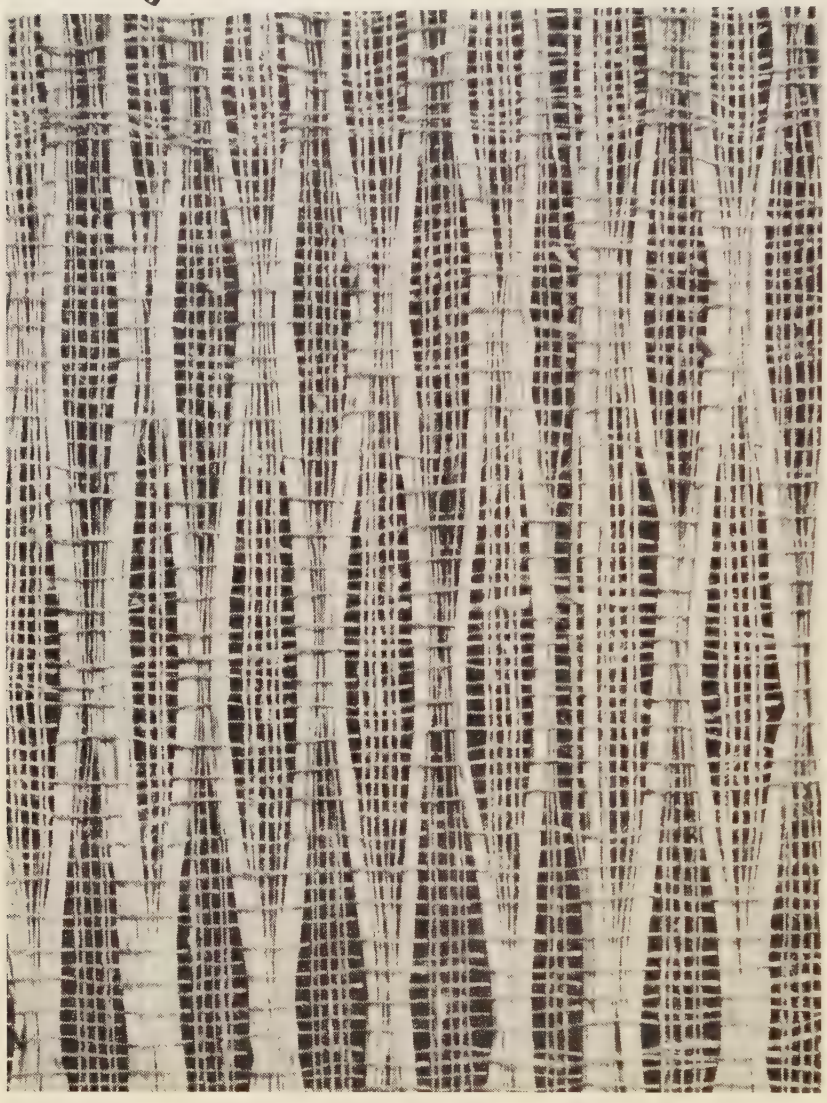
From small beginnings just after the war, the Danish plastics industry has gone on growing and now employs some 6,000 people. A couple of figures will illustrate the growth. The imports of plastics raw materials rose from 2,000,000 kroner just after the war to 130,000,000 kroner in 1960. They are still rising fast. The establishment of new businesses producing raw materials suggests that Denmark will become increasingly involved in the preliminary laboratory work and some time in the future may contribute to the development of new plastics raw materials.

While traditional Danish craftsmanship is making new headway, the designers have come into the picture and are creating new telephone Sats and many other units that are making the materials more and more attractive. They are in no small measure responsible for the success of Denmark's youngest industry.

The industry will be showing its achievements at a big exhibition in Copenhagen later in the summer, at which it will demonstrate how plastics in the last 10 years have conquered the world and will illustrate the importance of plastics in all walks of life, now that they have ceased to be a novelty and have grown into a rational industry.



Polyamide screw impeller use in food industries for conveying purposes



Prize Curtain

This curtain of linen and bast won a 5,000-kr. prize among 297 entries in a recent Danish competition. The judges pronounced it very interesting in weave, material, and colour, and thoroughly well-thought-out . . . The specimens are well-adapted for industrial application and will retain their character in production. The entry displays great originality of design. The weavers who designed the curtain are Oda and Jacob Ørsted Brandt.

A Kringle Festival

No fewer than one-third of the 75,000 population of Racine (Wisconsin) are estimated to be of Danish extraction, making Racine the 'most Danish city in America'.

This year's annual late-May Danish Kringle Festival was a city-wide success. To help keep alive Danish culture in the area, the festival features music, dances, costumes, and Danish bakery. A *kringle* resembles a *pretzel*.

Cabinet-makers' Furniture Show of 1961. The 35th Exhibition

The furniture exhibitions of the Cabinet-makers' Guild which started in 1927 as general sales shows of the cabinet-makers' ordinary current types, chiefly designed by the cabinet-makers themselves, have by vision and purposeful effort undergone a rich and fruitful development. Here is the home of modern Danish furniture design and style, which is highly esteemed—and imitated—all over the world.

It would be tempting on the occasion of the 35th anniversary to present a retrospective exhibition illustrating the development. Instead the organizers have chosen to look ahead and in even closer association with the best designers try to provide an exhibition of particularly high standard.

The arrangements connected with the exhibition will also be especially festive and attractive, so the many international visitors who are expected will not be disappointed.

About 30 cabinet-makers and as many designers will participate. In addition, a selection of modern textiles from the best Danish industrial and craft establishments will be shown.

The exhibition will be held as usual in the Museum of Decorative Art in Copenhagen, and will be open daily from 1 p.m. until 10 p.m., on Sundays from 10 a.m. to 10 p.m. The architect Edvard Kindt-Larsen is, as usual, the imaginative and tasteful organizer.

Inquiries concerning the exhibition should be addressed to the Cabinet-makers' Guild: Snedkerlaugets Kontor, Grønnegade 31, Copenhagen K.

Bird Tour of America

An exhibition of colour plates of Greenland birds by the painter Gitz-Johansen is now on a year's tour of America. 'Birds of Greenland', as the exhibition is called, was shown at the Florida State Museum last month and is being seen during June at the Washington Art Museum at Hagerstown, Maryland. After visiting Lincoln (Massachusetts) and other towns it will be on view at the Natural History Museum in New York in November and December. It is expected that the painter will visit New York to attend the opening of the exhibition there.

Unskilled Become Apprentices

The Aalborg Shipyard has initiated a training programme which will enable 90 unskilled workers to learn a trade.

The 90 men, of whom 30 are already in training, will undergo a two- or three-year period of training in the course of which they will give up much of their spare time for evening classes at the Aalborg Technical College. During training, these adult 'apprentices' will receive the minimum wages of general workers. The men who have applied are nearly all in their twenties and one is 35, says the yard. All are anxious to get training, and as the shipyard is short of skilled labour they have been selected for training as shipbuilders or riveters. The former takes two years, the latter three years.

Air Rescue Service in Greenland

By agreement between Canada, the United States, and Denmark an extensive air-sea rescue service has been initiated for the protection of flying over Greenland and the North Pole. The service comprises a large number of aircraft, and ships and wireless and weather stations in Greenland will play a vital part in it.

The rescue service will be able to draw on American planes not only at Thule and Søndre Strømfjord in Greenland, but also at Bodø in Norway and in Iceland, while the Canadians will provide aircraft from their Arctic bases. On the Danish side the Navy will participate with ships and planes, and aircraft from the ice reconnaisance service at Narssarssuaq will also take part. The rescue centres have been stocked with supplies ready for dropping to survivors of air crashes.

BOOK SHELF

The Social Class Structure

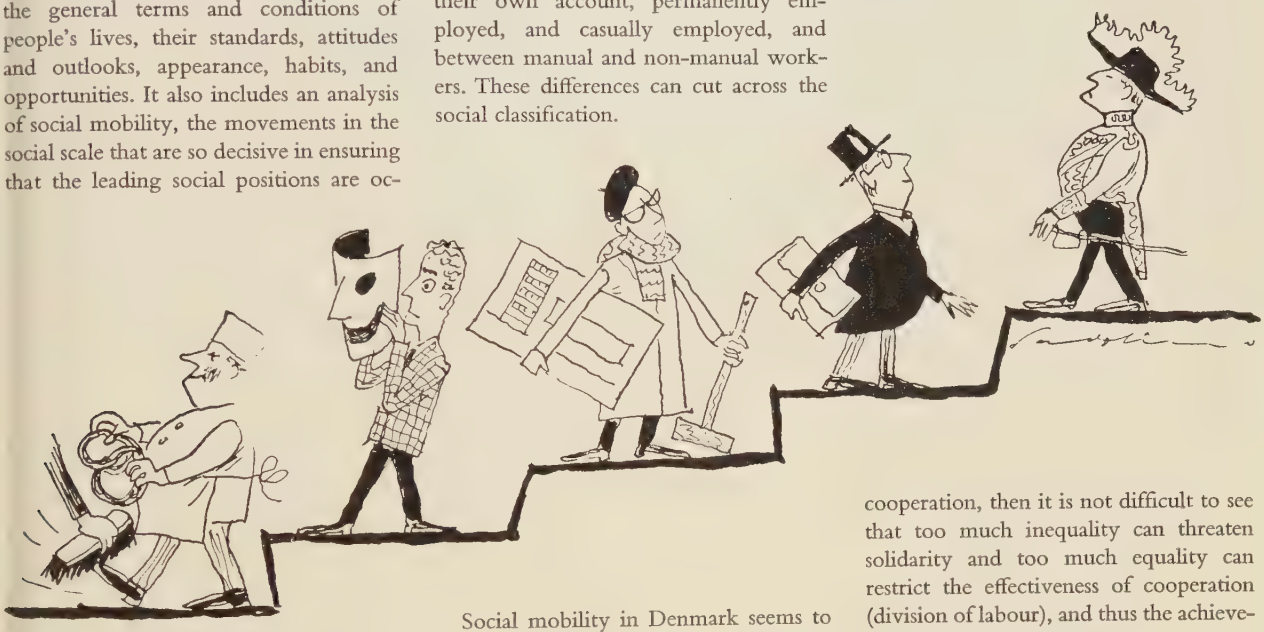
Kaare Svalastoga: Prestige Class and Mobility. Gyldendal, Copenhagen, 1959. William Heinemann, Ltd., London. Melbourne, Toronto. 84 s.

This book provides a careful survey of the social class structure of the modern Danish community, an account of the importance of the social stratification to the general terms and conditions of people's lives, their standards, attitudes and outlooks, appearance, habits, and opportunities. It also includes an analysis of social mobility, the movements in the social scale that are so decisive in ensuring that the leading social positions are occupied by those best qualified, irrespective of their social origins. This analysis is not confined to the individual career mobility, but also covers movements from generation to generation.

The survey is based on interviews of 2,522 men and 606 women, representing a cross-section of the entire Danish population of 21 and over. In determining the social rank or status of the individuals in his sample the author first made a selection of 75 generally known occupations and grouped them into five categories according to occupational prestige; that is to say, the standing enjoyed by an occupation regardless of who holds it. By comparing and combining occupational prestige with other status criteria, such as income, property, visible consumption, education, and participation in various forms of social activity indicating a measure of power and influence, Professor Svalastoga arrived at his final nine-category scale. This comprises three main classes—upper-, middle-, and working-class—each divided into an upper-, middle-, and lower-subclass, and ranging from the royal house down to persons on prolonged public assistance, vagrants, prison inmates, etc.

The survey has demonstrated such marked differences in habits and outlooks as between the various classes and subclasses that transition from one class to another will mean, for most people, at the same time a transition to an entirely different style of life.

There are, however, important differences on a plane other than the vertical, notably those between town and country, between persons working for their own account, permanently employed, and casually employed, and between manual and non-manual workers. These differences can cut across the social classification.



Social mobility in Denmark seems to be rather high compared with that in other countries, and opportunities of advancement should therefore be relatively good despite the small size of the country.

The social factors which condition—or at least are associated with—mobility include certain features of the social structure itself and population factors, among them the birth rate, this being lower in the higher classes and higher in the lower, a fact which encourages social advancement. Family and educational factors must also be taken into account, education in particular being usually regarded as one of the chief social elevators.

The methodological sections of the book are formulated in the language of mathematics and contain mathematical formulas, but are so fully described that they should make instructive reading for those wishing to acquaint themselves with recent sociological method.

The present work is outstanding not only for its comprehensive survey of the Danish social structure and its careful, sometimes refined method, but also for its contributions to sociological theory.

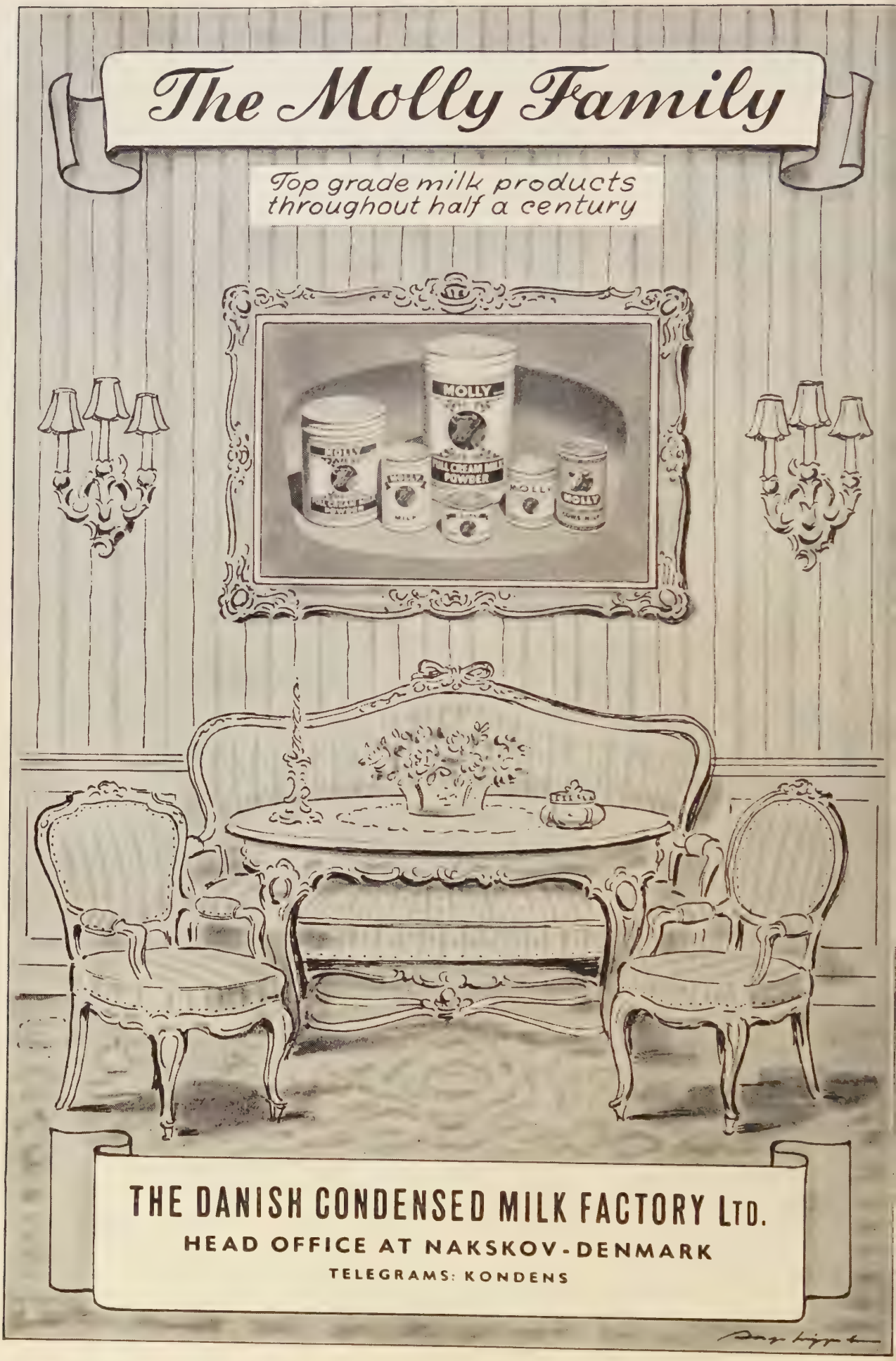
The most important of these contributions, no doubt, is the emphasizing of the fact that under given conditions there must be an optimal balance in the social class structure. Excessive social differences are not an advantage to a community, but neither is excessive equality. On the contrary, it would seem that the welfare of a community or group, expressed in one way or another, is highest when social inequality has reached a definite but not yet precisely defined level. If, for example, we take such expressions of welfare in a group as solidarity and effective cooperation, then it is not difficult to see that too much inequality can threaten solidarity and too much equality can restrict the effectiveness of cooperation (division of labour), and thus the achievement of the common aims.

If the technologically governed development in the direction of bigger communities and groups continues it is natural to suppose that greater inequality will be the most welfare-promoting condition in the future; but it will be accompanied by a greater risk of political and economic oligarchy or dictatorship. The remedy against this may well be increased social mobility and greater circulation among the social classes.

It becomes increasingly necessary for modern society to avail itself of the results of sociological research if with a reasonable degree of probability we are to be able to predict the social consequences of technical and other measures that are employed or promoted.

By his book, Professor Svalastoga has carried research a good step forward and laid a foundation upon which other sociologists can build.

Preben Wolf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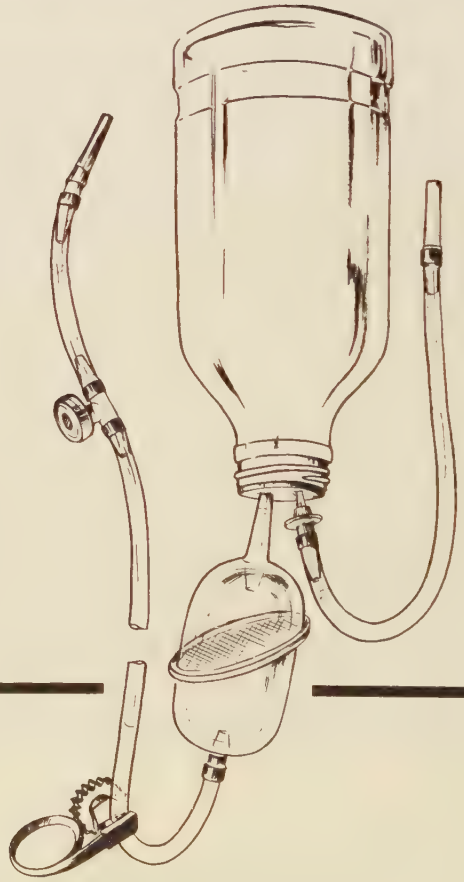

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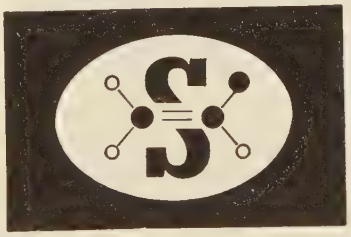

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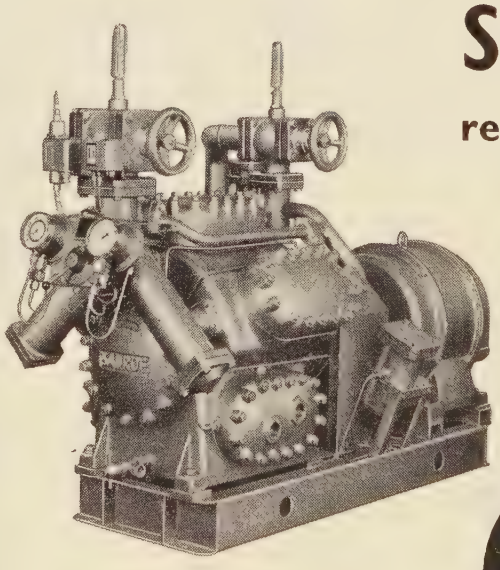

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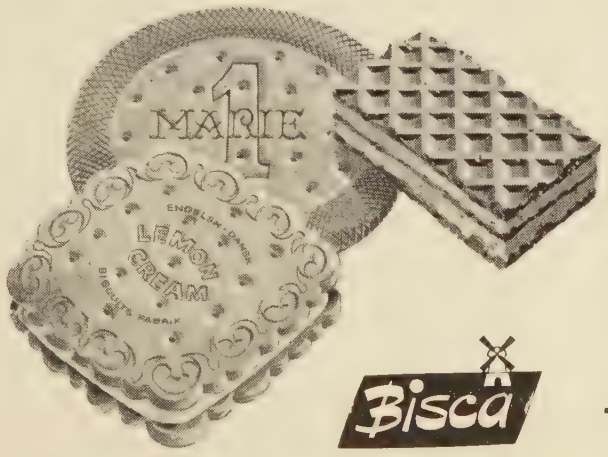

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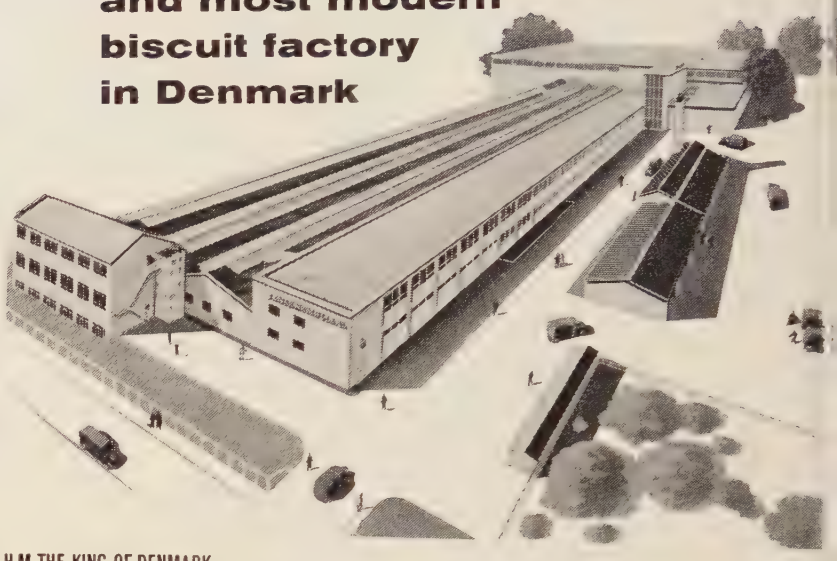

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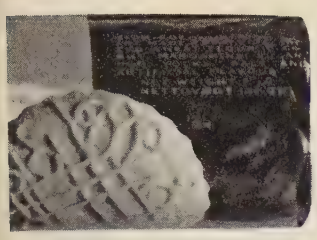

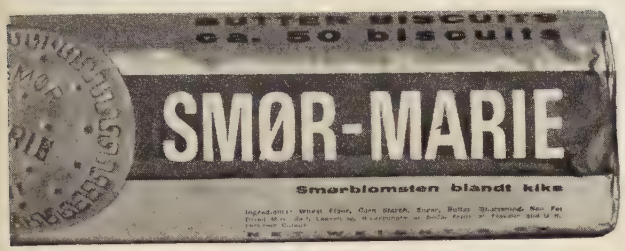

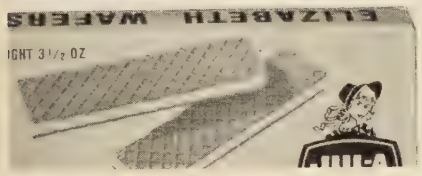

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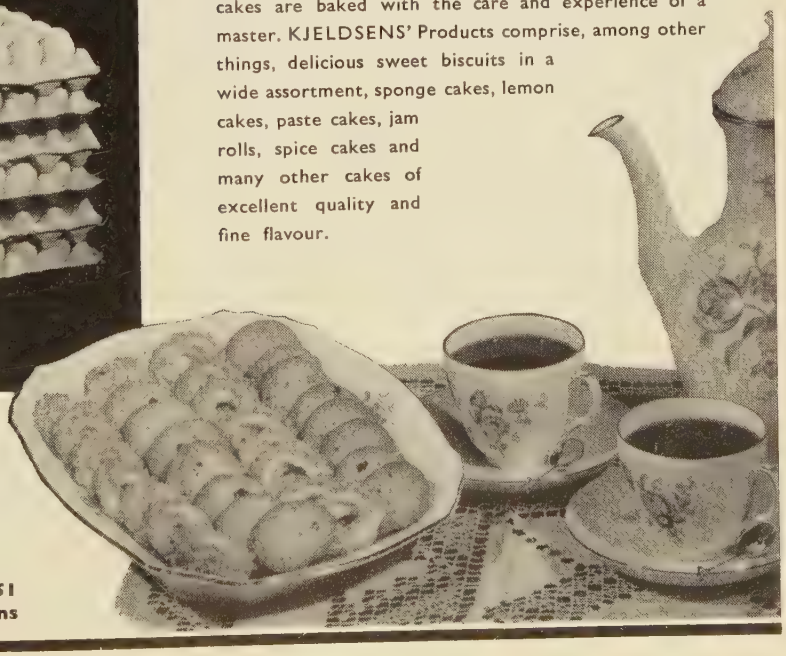

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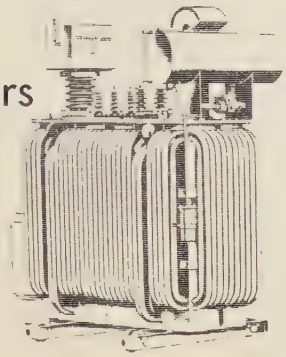

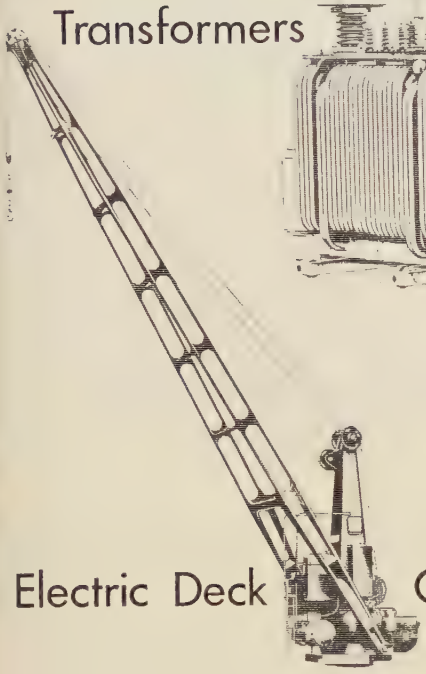

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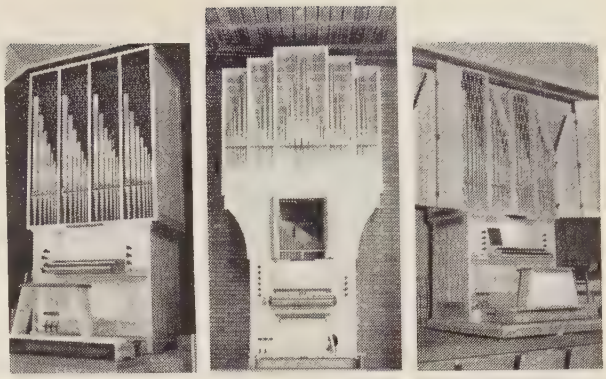

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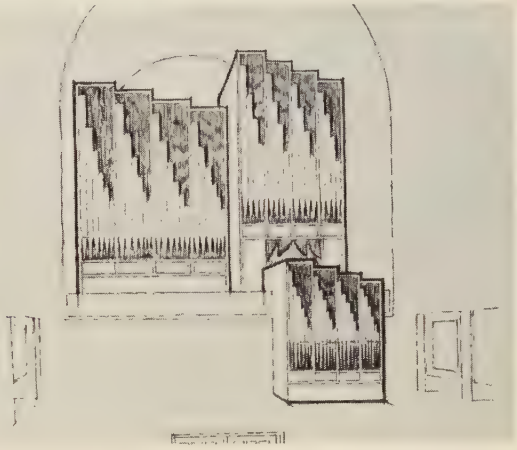

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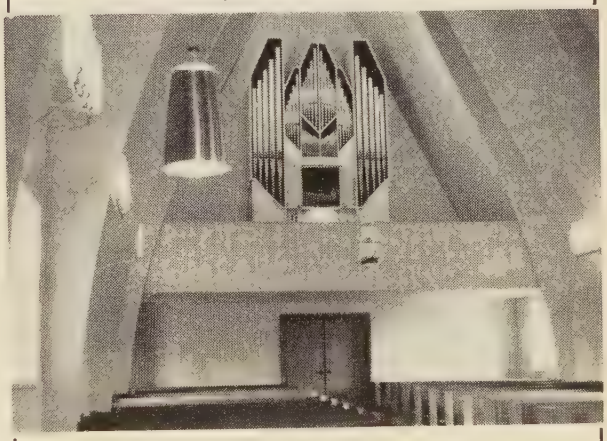

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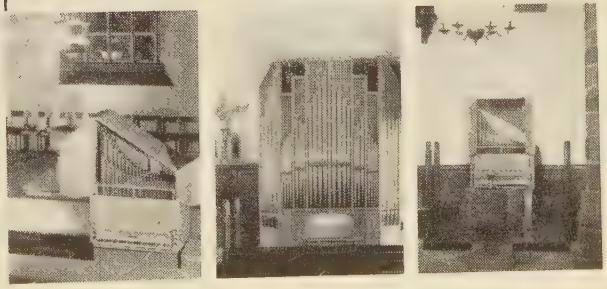

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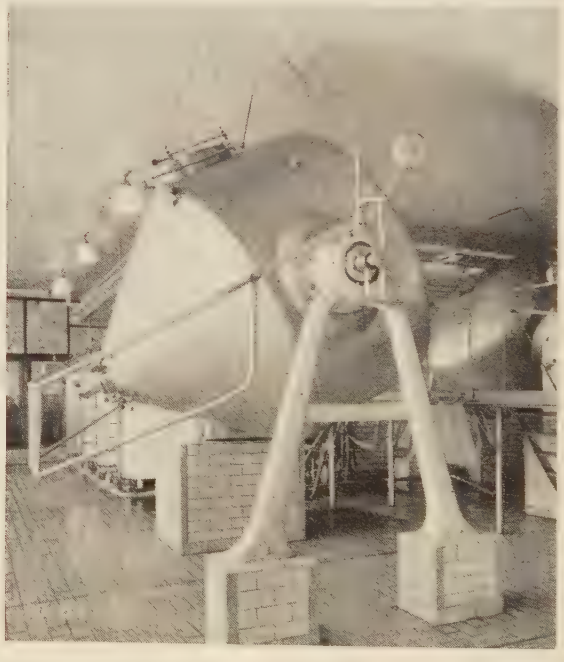

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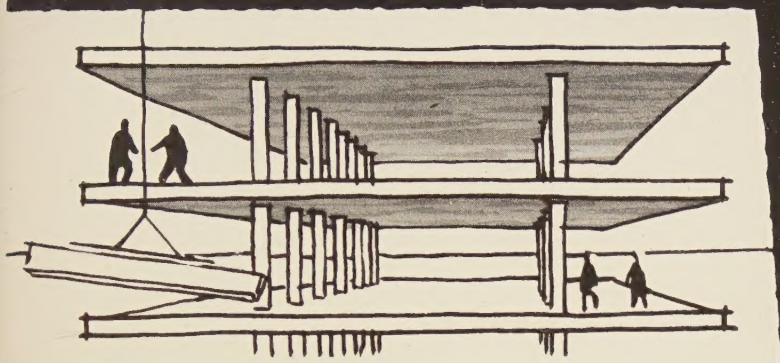

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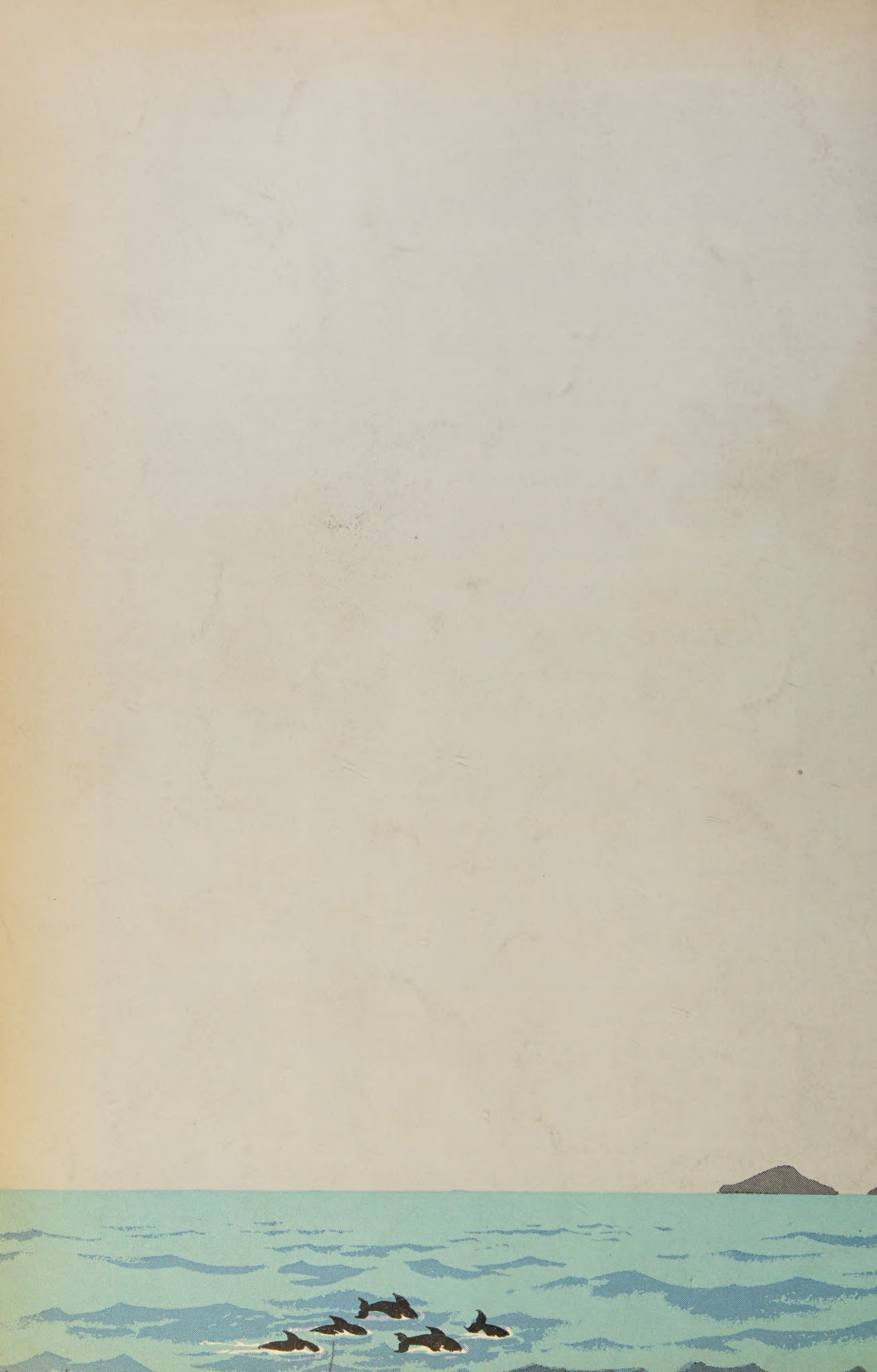
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